



GPe_PGU_CM_rev.8
Certificate of conformity



Product Certificate Number	230433-CER
Applicant	Fimer S.p.A. Via Tortona 25, CP:20144, Milano (MI), Italy
Series	PVS-100/120-TL
Models	See models in page 3
Type of generating unit	Three-phase Solar Inverter
Technical Data	See pages 4 and 5
Software version	2116B and 2117B (PVS-100-TL models) 2116C and 2117C (PVS-120-TL models)
Network connection code	Rozporządzenie Komisji (UE) 2016/631 z dnia 14 kwietnia 2016 r. ustanawiające kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci (Dz.U. UE L 112/1 z 27.4.2016) [1] Type A and B. Wymogi Ogólnego Stosowania wynikające z rozporządzenia komisji UE 2016/631 z dnia 14 kwietnia 2016 r. ustanawiającego kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci - zatwierdzone Decyzją Prezesa Urzędu Regulacji Energetyki DRE.WOSE.7128.550.2.2018.ZJ z dnia 2 stycznia 2019 r. [2] Warunki i procedury wykorzystania certyfikatów w procesie przyłączenia modułów wytwarzania energii do sieci elektroenergetycznych. Version 1.2. PTPIREE. 28.04.2021 [3]

Having assessed the report number, that contains KPT option: 230433-TR performed by CERE (EA Accredited Laboratory N° 1376/LE2560) based on the requirements of the EN ISO/IEC 17025: 2017.

The above-mentioned generating unit complies with the requirements of the:

Rozporządzenie Komisji (UE) 2016/631 z dnia 14 kwietnia 2016 r. ustanawiające kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci (Dz.U. UE L 112/1 z 27.4.2016). **Type A and B.**

Wymogi Ogólnego Stosowania wynikające z rozporządzenia komisji UE 2016/631 z dnia 14 kwietnia 2016 r. ustanawiającego kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci - zatwierdzone Decyzją Prezesa Urzędu Regulacji Energetyki **DRE.WOSE.7128.550.2.2018.ZJ z dnia 2 stycznia 2019 r.** **Warunki** i procedury wykorzystania certyfikatów w procesie przyłączenia modułów wytwarzania energii do sieci elektroenergetycznych. **Version 1.2.** PTPIREE. 28.04.2021.

This certification is according to the CERE internal process PET-CERE-30 Rev 10, 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:

- Testing of production samples selected by CERE.
- Audit of quality system according ISO 9001 with certificate number: C2021-02571-T issued by a certification body accredited according EN ISO/IEC 17021.
- Inspection of the manufacturing process.

Madrid, November 08, 2023. This certificate is valid until November 07, 2028.

Miguel Martínez Lavin
Certification Director



GPe_PGU_CM_rev.8
Certificate of conformity



REQUIREMENT							
Article RfG2016/631 [1]	Article Wymogi... DRE WOSE [2]	Article Warunki [3]	Requirement definition	PGM Type*	Type of assessment	Method of assessment (KPT/full test)	Compliant (YES/NO)
13.1 a) 16.2 a)	13.1 a) 16.2 a)	9	Operation Field	≥A	T	KPT	YES
13.1b	13.1b	9	ROCOF	≥A	T	KPT	YES
13.2	13.2	7, 9	P vs F (Overfrequency)	≥A	T	KPT	YES
13.4, 15.2c	13.4, 15.2c	7, 9	P vs F (Underfrequency)	≥A	T	KPT	YES
15.2d	15.2d	7	FSM	≥C	N/A	N/A	N/A
13.6	13.6	9	Trip due to an external order	A & B	T	KPT	YES
13.7, 14.4.a)	13.7, 14.4 a)	--	Connection / Reconnection	A, B & C	T	KPT	YES
15.2 a), b), 15.6 e)	15.2 a), b), 15.6 e)	--	Active power control & Power gradients	≥C	N/A	N/A	N/A
14.3, 16.3 20.2 b), c) 20.3	14.3, 16.3 20.2 b), c) 20.3	7	FRT	≥B	T	KPT	YES
21.3.b), c)	21.3.b), c)	--	PQ capability	≥C	N/A	N/A	N/A
21.3 d)	21.3 d)	--	Q fixed - PF fixed	≥C	N/A	N/A	N/A
21.3 d)	21.3 d)	--	Q vs V	≥C	N/A	N/A	N/A

Legend:

- In the column "PGM Type", the text ≥A means that it applies to PGM Types A, B, C and D. The same applies to the rest. In column "Type of Assessment": S means compliance simulation, T means compliance test and N/A does not apply. In all cases specified as T, the test will be performed in maximum power of PGU and, if it is not possible, the simulation of the requirement at maximum power shall be performed, using a validated model according to FGW TG4. These special cases will be indicated as "T and S"
- *Most restrictive type chosen between [1], [2] and [3]. E.g: LFSM-O is required in [1] for PGM types from A on. In [3], this requirement applies from B type on. Type A is indicated.



GPe_PGU_CM_rev.8
Certificate of conformity



Models

PVS-100-TL-SX2 PVS-100-TL-SX PVS-100-TL-SY2 PVS-100-TL-SY PVS-100-TL-S2 PVS-100-TL	PVS-120-TL-SX2 PVS-120-TL-SX PVS-120-TL-SY2 PVS-120-TL-SY PVS-120-TL-S2 PVS-120-TL
---	---





Technical data

PVS-100-TL						
Wiring Box version	SX	SX2	SY	SY2	Standard	S2
Input side (DC side)						
Absolute maximum voltage	1000V					
Start-up voltage	420V (400-500V)					
Operating voltage range	360-1000 V					
Rated input	620V					
Rated power	102000 W					
No. Of independent MPPT	6	6	6	6	2 (Paralleable)	
Maximum power for each MPPT	21000W	21000 W	21000 W	21000 W	63000 W	63000 W
Maximum current for each MPPT	36 A	36 A	36 A	36 A	108 A	108 A
Maximum short circuit current	50 A	50 A	50 A	50 A	150 A	150 A
Output side (AC side)						
Connection type	Three phase 3W+PE or 4W+PE					
Rated power	100000 W					
Maximum apparent power	100000 VA					
Rated voltage	400 V					
Voltage range	320 - 480 V					
Maximum current for each MPPT	145 A					
Rated frequency	50 Hz/ 60 Hz					
Environmental						
Operating ambient temperature range	-25 to +60°C with derating above 40°C					
Relative humidity	4% - 100% condensing					
Environmental protection rating	IP 66 (IP54 for cooling section)					
Cooling	Forced air					
Dimension (H x W x D)	869x1086x419 mm / 34.2" x 42.7" x 16.5"					

Note:

- PVS-100-TL-SX2: Input with 24 quick fit connectors pairs + String fuses (both positive and negative pole) + DC disconnect switches + AC disconnect switch + AC and DC overvoltage surge arresters (Type II) + individual string monitoring (24 ch.). ☺
- PVS-100-TL-SX: Input with 24 quick fit connectors pairs + String fuses (positive pole) + DC disconnect switches + AC and DC overvoltage surge arresters (Type II) + MPPT level input current monitoring (6 ch.).
- PVS-100-TL-SY2: Input with 24 quick fit connectors pairs + String fuses (both positive and negative pole) + DC disconnect switches + AC disconnect switch + AC and DC overvoltage surge arresters (Type II for AC and Type I+II for DC) + individual string monitoring (24 ch.).
- PVS-100-TL-SY: Input with 24 quick fit connectors pairs + String fuses (positive pole) + DC disconnect switches + AC and DC overvoltage surge arresters (Type II for AC and Type I+II for DC) + MPPT level input current monitoring (6 ch.).
- PVS-100-TL-S2: Input with cable gland + DC disconnect switch + AC disconnect switch + AC and DC overvoltage surge arresters (Type II) + MPPT level input current monitoring.
- PVS-100-TL: Input with cable gland + AC and DC overvoltage surge arresters (Type II) + MPPT level in-put current monitoring.



GPe_PGU_CM_rev.8
Certificate of conformity

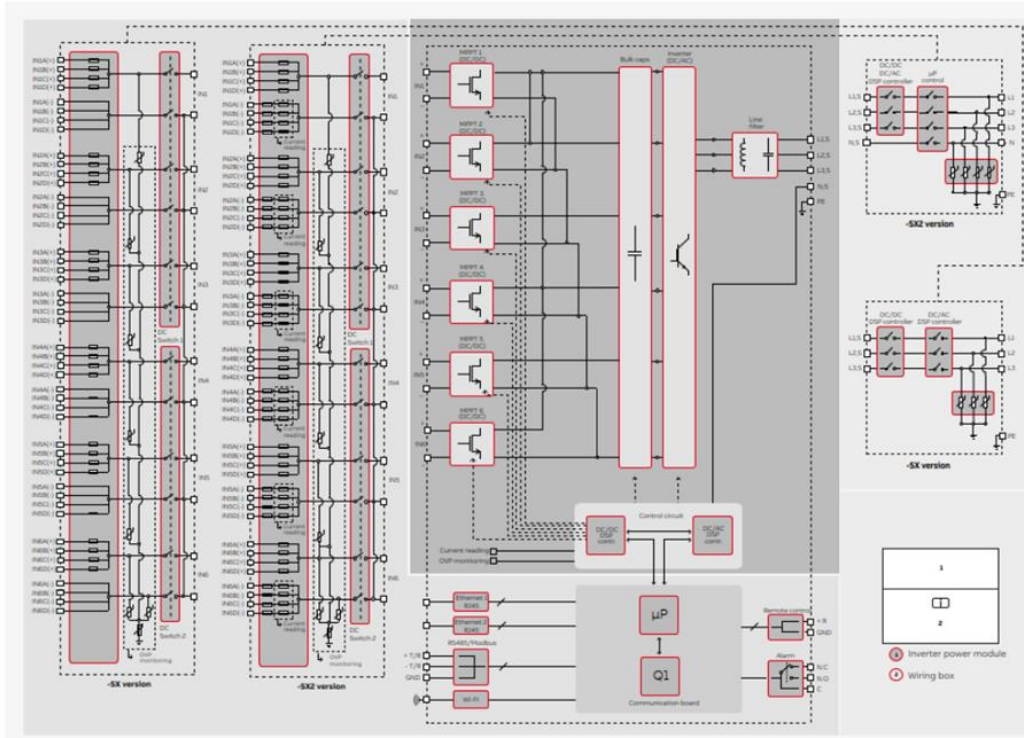


PVS-120-TL						
Wiring Box version	SX	SX2	SY	SY2	Standard	S2
Input side (DC side)						
Absolute maximum voltage	1000 V					
Start-up voltage	420V (400-500V)					
Operating voltage range	360-1000 V					
Rated input	720V					
Rated power	123000 W					
No. Of independent MPPT	6	6	6	6	2 (Parallelable)	
Maximum power for each MPPT	25000 W	25000 W	25000 W	25000 W	75000 W	75000 W
Maximum current for each MPPT	36 A	36 A	36 A	36 A	108 A	108 A
Maximum short circuit current	50 A	50 A	50 A	50 A	150 A	150 A
Output side (AC side)						
Connection type	Three phase 3W+PE or 4W+PE					
Rated power	120000 W					
Maximum apparent power	120000 VA					
Rated voltage	480 V					
Voltage range	384 – 576 V					
Maximum current for each MPPT	145 A					
Rated frequency	50 Hz / 60 Hz					
Environmental						
Operating ambient temperature range	-25 to +60°C with derating above 40°C					
Relative humidity	4% - 100% condensing					
Environmental protection rating	IP 66 (IP54 for cooling section)					
Cooling	Forced air					
Dimension (H x W x D)	869x1086x419 mm / 34.2" x 42.7" x 16.5"					

Note:

- PVS-120-TL-SX2: Input with 24 quick fit connectors pairs + String fuses (both positive and negative pole) + DC disconnect switches + AC disconnect switch + AC and DC overvoltage surge arresters (Type II) + individual string monitoring (24 ch.)
- PVS-120-TL-SX: Input with 24 quick fit connectors pairs + String fuses (positive pole) + DC disconnect switches + AC and DC overvoltage surge arresters (Type II) + MPPT level input current monitoring (6 ch.)
- PVS-120-TL-SY2: Input with 24 quick fit connectors pairs + String fuses (both positive and negative pole) + DC disconnect switches + AC disconnect switch + AC and DC overvoltage surge arresters (Type II for AC and Type I+II for DC) + individual string monitoring (24 ch.)
- PVS-120-TL-SY: Input with 24 quick fit connectors pairs + String fuses (positive pole) + DC disconnect switches + AC and DC overvoltage surge arresters (Type II for AC and Type I+II for DC) + MPPT level input current monitoring (6 ch.).
- PVS-120-TL-S2: Input with cable gland + DC disconnect switch + AC disconnect switch + AC and DC overvoltage surge arresters (Type II) + MPPT level input current monitoring.
- PVS-120-TL: Input with cable gland + AC and DC overvoltage surge arresters (Type II) + MPPT level in-put current monitoring.

Electrical Diagram of PVS Series



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

FIMER S.p.A.
Via San Giorgio 642
52028, Terranuova, Braccionlini,
Italy

Sample Report Number:

230433-TM

The inspection of manufacturing process was performed in:
On June 29, 2023

FIMER S.p.A.
Via San Giorgio 642
52028, Terranuova, Braccionlini,
Italy

Inspection Report Number:

23096-23-1-IF

RECORD OF CHANGES

Revision	Reason of the modification	Modification	Date
0	Initial version	--	08/11/2023