





1/2 Ref. UNO-DM-5.0(4.6)(4.0)(3.3)(2.0)(1.2)-TL-PLUS-XYK-JVN-DIP (Fimer_VDE-AR-N 4105 Form E6_EN)

VDE-AR-N 4105:2018-11 Certificate of conformity for the NS protection integrated in the inverters	
Manufacturer	Fimer S.p.A. Via Tortona, 25 20144 Milano (MI) - Italy
Type of NS protection	Relay contacts
Integrated NS protection assigned to power generation unit type	Relay
Network connection rule	VDE-AR-N 4105:2018-11 “Generators connected to the low-voltage distribution network” Technical requirements for connection to and parallel operation with low-voltage distribution network
The network and system protection integrated in the power generation units listed in Table 1 meets the requirements of VDE-AR-N 4105:2018-11.	
The setting values and disconnection times (total break times) of the protective functions are as follows: Voltage drop protection $U <$: 184 V \leq 3000 ms Rise-in-voltage protection $U > (*)$: 253 V $<$ 200 ms Rise-in-voltage protection $U >>$: 287,5 V \leq 100 ms Frequency decrease protection $f <$: 47,5 Hz \leq 100 ms Frequency increase protection $f >$: 51,5 Hz \leq 100 ms (*) moving 10-minute average protection according EN 50160 - All requirements of VDE-AR-N 4105:2018-11 are fulfilled and have been confirmed via type tests conducted in Fimer S.p.A. - The conformity is ensured for all products with model name and firmware version as listed in Table 1.	
Terranuova Bracciolini, 19 January 2021	
 Alessandro Rossi (Testing & Laboratory Manager)	 Paolo Casini (Chief Technical Officer)
This certificate of conformity of two pages shall not be used in parts. Fimer S.p.A. Via Tortona, 25 – 20144 Milano (MI) – Italy	

FIMER S.p.A.

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Manufacturing Unit: Via San Giorgio 642 – 52028 Terranuova B.ni (AR) – Italy
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Inverter models	Maximum active power P_{Emax}	Maximum apparent power S_{Emax}	AC rated voltage	Rated current (AC) Ir	Initial short-circuit AC current	Fulfill VDE-AR-N 4105:2018-11 requirements from firmware version
UNO-DM-5.0-TL-PLUS-XYK-JVN-DIP	5,0 kW	5,0 kA	230 V	22 A	24 A	Not less than 1924A Standard selection: GERMANY (VDE 4105:2018-11)
UNO-DM-4.6-TL-PLUS-XYK-JVN-DIP	4,6 kW	4,6 kA	230 V	20 A	22 A	Not less than 1924A Standard selection: GERMANY (VDE 4105:2018-11)
UNO-DM-4.0-TL-PLUS-XYK-JVN-DIP	4,0 kW	4,0 kA	230 V	17,2 A	19 A	Not less than 1924A Standard selection: GERMANY (VDE 4105:2018-11)
UNO-DM-3.3-TL-PLUS-XYK-JVN-DIP	3,3 kW	3,3 kA	230 V	14,5 A	16 A	Not less than 1924A Standard selection: GERMANY (VDE 4105:2018-11)
UNO-DM-2.0-TL-PLUS-XYK-JVN-DIP	2,0 kW	2,0 kA	230 V	10 A	12 A	Not less than 1924A Standard selection: GERMANY (VDE 4105:2018-11)
UNO-DM-1.2-TL-PLUS-XYK-JVN-DIP	1,2 kW	1,2 kA	230 V	5,5 A	10 A	Not less than 1924A Standard selection: GERMANY (VDE 4105:2018-11)

TABLE 1. Fimer S.p.A. Grid Tied Solar Inverter in compliance with VDE-AR-N 4105:2018-11

FIMER S.p.A.

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