SLOVENSKI STANDARD
SIST EN 50549-1:2019/AC:2019

01-junij-2019

Zahteve za vzporedno vezavo generatorskih postrojev z razdelilnim omrežjem - 1. del: Vezava z nizkonapetostnim razdelilnim omrežjem - Generatorski postroji do vključno tipa A

Requirements for generating plants to be connected in parallel with distribution networks - Part 1: Connection to a LV distribution network - Generating plants up to and including Type B

Anforderungen für zum Parallelbetrieb mit einem Verteilnetz vorgesehene Erzeugungsanlagen - Teil 1: Anschluss an das Niederspannungsverteilnetz bis einschließlich Typ B

Exigences relatives aux centrales électriques destinées à être raccordées en parallèle à des réseaux de distribution - Partie 1: Raccordement à un réseau de distribution BT - Centrales électriques jusqu'au Type B inclus

Ta slovenski standard je istoveten z: **EN 50549-1:2019/AC:2019-04**

ICS:

29.160.20	Generatorji	Generators
29.240.01	Omrežja za prenos in distribucijo električne energije na splošno	Power transmission and distribution networks in general

SIST EN 50549-1:2019/AC:2019 **en**

CENELEC

Corrigendum to EN 50549-1:2019

English version

Replace the incomplete Table F.1 by the following complete table:

Table F.1 — Typical protection functions and related regulations on interface protection relays in the Italian solution

Protection function	Default threshold value	Default relay operate time	Maximum opening time of the output-break circuit (interface CB with tripping command operated from a voltage absence coil)
Maximum voltage U>.S1 (ANSI CODE 59.S1), 10 minutes mean function (according to EN 61000-4-30, Class S, but adopting a moving window with refresh time ≤ 3 s)	1,10 Vn	Start time ≤ 3 s, not adjustable. Delay time setting = 0 ms Depending on voltage values during the moving window. Maximum value 603 s.	Depending on voltage values during the moving window. Maximum 603,70 s.
Maximum voltage U>.S2 (ANSI CODE 59.S2)	1,20 Vn	200 ms	270 ms
Minimum voltage U<.S1 (ANSI CODE 27.S1) (1)	0,85 Vn	1500 ms	1570 ms
Minimum voltage U<.S2 (ANSI CODE 27.S2) (1)	0,4 Vn	200 ms	270 ms
Maximum frequency f>.S2 (ANSI CODE 81.S2) (2)	50,2 Hz	150 ms	170 ms
Minimum frequency f<.S2 (ANSI CODE 81.S2) (2)	49,8Hz	150 ms	170 ms
Maximum frequency f>.S1 (ANSI CODE 81.S1) (2)	51,5 Hz	1,0 s	1,07 s
Minimum frequency f<.S1 (ANSI CODE 81.S1) (2)	47,5 Hz	4,0 s	4,07 s
Maximum residual voltage U0> (ANSI CODE 59V0) (3)	5 % Vrn (4)	For protection use: 25 s For voltmetric unlock use (ANSI CODE 81V): 0 ms (equal to start time:70 ms)	For protection use: 25,07 s For voltmetric unlock use: equal to start time (1)
Maximum inverse sequence voltage Ui> (ANSI CODE 59 Vi) (1)	15% Vn/En (5) (indicative, depending on the network)	For voltmetric unlock use (ANSI CODE 81V): 0 ms (equal to start time: 70 ms)	Equal to start time
Minimum direct sequence voltage Ud< (ANSI CODE 27 Vd) (1)	70% Vn/En (5) (indicative, depending on the network)	For voltmetric unlock use (ANSI CODE 81V): 0 ms (equal to start time:70 ms)	Equal to start time
Transfer trip		<150 ms	<220 ms

(1) Threshold active only for inverters and rotating generators connected to distribution network with AC/AC converters. For rotating generators directly connected U<.S2: operate time 70 ms, threshold value 70%, U<.S1: excluded .
(2) For voltage values below 0,2 Vn, f>.S1, f>.S2 & f<.S1, f<.S2 protections shall be disabled.
(3) Function used both for tripping and for voltmetric unlock function.
(4) Regulation in % of nominal residual voltage Vrn in case of a phase to earth fault with 0 Ω fault resistance derived directly from an open delta winding or calculated internally the IPR from phase to earth voltages derived from non iron core voltage transducers.
(5) Regulation in % of nominal phase to earth or phase to phase voltage, according to voltage measurements methods.