

## Technical Note: SolarEdge TerraMax™ Inverter Harmonics

The following table detail the test results of harmonic current limit, performed on SolarEdge TerraMax model SE330K, grid voltage 690Vac, max AC Power 330kW.

### Legend

**P** = AC power

**I<sub>h</sub>** = Harmonic Current

**P<sub>nom</sub>** = Nominal AC Power

**I<sub>n</sub>** = Nominal AC Current

### TerraMax Inverter Harmonics Table

P <sub>nom</sub>	P=33% P <sub>nom</sub>	P=50% P <sub>nom</sub>	P=66% P <sub>nom</sub>	P=100% P <sub>nom</sub>
	I <sub>h</sub> /I <sub>n</sub> [%]	I <sub>h</sub> /I <sub>n</sub> [%]	I <sub>h</sub> /I <sub>n</sub> [%]	I <sub>h</sub> /I <sub>n</sub> [%]
Harm(0)	0.158768478	0.274224275	0.28368587	0.295331884
Harm(2)	0.28527029	0.291564493	0.41617971	0.272988768
Harm(3)	0.26711087	0.235350362	0.337881884	0.206499275
Harm(4)	0.216355797	0.21255471	0.231289493	0.163307971
Harm(5)	0.762428623	0.632844928	0.580406159	0.530811957
Harm(6)	0.0704	0.066597826	0.121971739	0.064315942
Harm(7)	0.338658333	0.408296014	0.447519928	0.421476812
Harm(8)	0.083078261	0.091963406	0.124472101	0.114007246
Harm(9)	0.142370652	0.157152899	0.18891413	0.16752971
Harm(10)	0.062643478	0.065687319	0.080971014	0.110794565
Harm(11)	0.405521014	0.385363768	0.368730435	0.383827536
Harm(12)	0.07946087	0.089051449	0.115321014	0.068806159
Harm(13)	0.390180072	0.353181159	0.333469565	0.255487681
Harm(14)	0.069684058	0.063493841	0.061668478	0.074851812
Harm(15)	0.095474275	0.110962681	0.151842029	0.076405072
Harm(16)	0.094659783	0.077787681	0.073155072	0.070250725
Harm(17)	0.202711594	0.282000725	0.310750725	0.298258696
Harm(18)	0.074628986	0.079667029	0.078689493	0.059277536
Harm(19)	0.121193841	0.203197826	0.233463768	0.217794928
Harm(20)	0.080936232	0.077340217	0.064093841	0.089810145
Harm(21)	0.072591304	0.077568478	0.083046377	0.081364855
Harm(22)	0.092625725	0.100834058	0.092311957	0.069960507
Harm(23)	0.078318478	0.160967754	0.213071377	0.217298913
Harm(24)	0.059015942	0.065223913	0.077686594	0.071485507
Harm(25)	0.062783333	0.088057246	0.129363406	0.131846377
Harm(26)	0.047226812	0.046153623	0.038361594	0.057685507
Harm(27)	0.031980435	0.034004348	0.041391667	0.069024275
Harm(28)	0.045068841	0.051875362	0.057600362	0.04490471
Harm(29)	0.040576087	0.058522464	0.099225	0.128175725
Harm(30)	0.038368116	0.039409058	0.04448587	0.037786232
Harm(31)	0.04792029	0.050144928	0.074261957	0.112348551
Harm(32)	0.034047826	0.033219203	0.030555435	0.032168478
Harm(33)	0.024633333	0.029874638	0.035684783	0.041184058
Harm(34)	0.027213043	0.025981522	0.029435145	0.033428261
Harm(35)	0.023392391	0.028772826	0.060388406	0.077165942

Pnom	P=33% Pnom	P=50% Pnom	P=66% Pnom	P=100% Pnom
	Ih/In [%]	Ih/In [%]	Ih/In [%]	Ih/In [%]
Harm(36)	0.031612681	0.038655435	0.032741667	0.026218478
Harm(37)	0.089606522	0.051763768	0.035876449	0.027142754
Harm(38)	0.040581884	0.034687681	0.032890942	0.030913768
Harm(39)	0.024307971	0.018180435	0.015002174	0.01611413
Harm(40)	0.034371739	0.034586957	0.030430435	0.028964493
Harm(41)	0.047975362	0.03680471	0.022060145	0.012642754
Harm(42)	0.030769203	0.029053623	0.022486594	0.016862319
Harm(43)	0.04731087	0.019786232	0.024654348	0.020611957
Harm(44)	0.026033333	0.02230942	0.017764855	0.012931159
Harm(45)	0.017939855	0.017793478	0.015153623	0.012058333
Harm(46)	0.024849275	0.021451087	0.020526812	0.020648188
Harm(47)	0.031368841	0.015653986	0.009484783	0.01203913
Harm(48)	0.020563406	0.016194203	0.015324275	0.011314493
Harm(49)	0.037626087	0.01891558	0.014020652	0.013121014
Harm(50)	0.019088043	0.013938406	0.01226413	0.012438768
Harm(51)	0.014438043	0.012027536	0.009952174	0.007439493
Harm(52)	0.023732971	0.011562681	0.009698551	0.010296014
Harm(53)	0.029230797	0.010511594	0.008174275	0.009538406
Harm(54)	0.018512319	0.013976087	0.010721739	0.008869203
Harm(55)	0.030073551	0.011243841	0.009855435	0.012132609
Harm(56)	0.016014855	0.015220652	0.012643841	0.010528623
Harm(57)	0.010880797	0.010175725	0.007023551	0.005096377
Harm(58)	0.022264855	0.010166304	0.008866667	0.008228261
Harm(59)	0.014941667	0.010959783	0.01076413	0.010260507
Harm(60)	0.015169203	0.009683333	0.007457246	0.006721377
Harm(61)	0.017259058	0.013428261	0.013847464	0.013410507
Harm(62)	0.014786594	0.012504348	0.009460145	0.008011232
Harm(63)	0.011388768	0.008614855	0.006685145	0.004775
Harm(64)	0.01214529	0.011643841	0.012277899	0.010815217
Harm(65)	0.010558696	0.007036232	0.00673913	0.005763043
Harm(66)	0.013299638	0.008703623	0.006314855	0.004918841
Harm(67)	0.012683333	0.009082971	0.009065217	0.009297464
Harm(68)	0.012313043	0.006210145	0.005673188	0.00665942
Harm(69)	0.009324638	0.006001449	0.005056884	0.003806159
Harm(70)	0.010164493	0.00661558	0.006011232	0.005304348
Harm(71)	0.010863768	0.007496739	0.008696739	0.008766304
Harm(72)	0.009765942	0.007055435	0.005017391	0.004507971
Harm(73)	0.00742029	0.006307609	0.005236594	0.004015217
Harm(74)	0.012018478	0.006590217	0.005557971	0.004978261
Harm(75)	0.008348913	0.004982246	0.00465471	0.003401087
Harm(76)	0.011134783	0.005402536	0.004026087	0.004872464
Harm(77)	0.008211594	0.006896014	0.00743442	0.006149638
Harm(78)	0.008973188	0.005948551	0.005038043	0.004204348
Harm(79)	0.010493841	0.006512681	0.006851812	0.005673551
Harm(80)	0.009738043	0.008188768	0.007510507	0.005882971
Harm(81)	0.007269565	0.004937319	0.00433587	0.003184058
Harm(82)	0.008181522	0.007271377	0.006389493	0.00511087

Pnom	P=33% Pnom lh/ln [%]	P=50% Pnom lh/ln [%]	P=66% Pnom lh/ln [%]	P=100% Pnom lh/ln [%]
Harm(83)	0.006892029	0.0075	0.007098551	0.005255072
Harm(84)	0.009082609	0.005872826	0.005406884	0.004270652
Harm(85)	0.007868841	0.008810145	0.008408696	0.006913406
Harm(86)	0.007261232	0.00733442	0.006343478	0.004537681
Harm(87)	0.007327899	0.007436957	0.005946014	0.004193116
Harm(88)	0.007024275	0.005284058	0.004566304	0.003127174
Harm(89)	0.006706522	0.006614493	0.004802174	0.003173188
Harm(90)	0.007442754	0.005778261	0.004025	0.003349638
Harm(91)	0.006428623	0.004946377	0.004412319	0.003265217
Harm(92)	0.008765942	0.005040217	0.004436594	0.003607609
Harm(93)	0.006592029	0.005417391	0.004351449	0.002906884
Harm(94)	0.007274275	0.004788406	0.004081884	0.004214855
Harm(95)	0.007332971	0.006243841	0.00498913	0.003475
Harm(96)	0.006525362	0.005445652	0.004135507	0.00334529
Harm(97)	0.009678623	0.005297826	0.004243116	0.003278623
Harm(98)	0.008378623	0.006401087	0.00485942	0.003457971
Harm(99)	0.006993116	0.005092391	0.003984783	0.003011594