

Table I
DESCRIPTION OF THE TRAINING-SAMPLES OF ANN-BASED CONTROLLER FOR THREE-PHASE INVERTER WITH AN OUTPUT LC FILTER

Type # 1: Resistive Load with $R = 1, 3, 5, 7, 10, 15, 20, 25, 30, 35$								
Sample No.	$R\ [\Omega]$		$T_s\ [\mu s]$	$L\ [mH]$	$C\ [\mu F]$	$V_{dc}\ [V]$	$v_c^*\ [V]$	# of cycles/samples
S_1	1		10	3.5	50	500	200	3/6001
S_2	3		10	3.5	50	500	200	3/6001
S_3	5		10	3.5	50	500	200	3/6001
S_4	7		10	3.5	50	500	200	3/6001
S_5	10		10	3.5	50	500	200	3/6001
S_6	15		10	3.5	50	500	200	3/6001
S_7	20		10	3.5	50	500	200	3/6001
S_8	25		10	3.5	50	500	200	3/6001
S_9	30		10	3.5	50	500	200	3/6001
S_{10}	35		10	3.5	50	500	200	3/6001
S_{11}	1		20	3.5	50	500	200	4/4001
S_{12}	3		20	3.5	50	500	200	4/4001
S_{13}	5		20	3.5	50	500	200	4/4001
S_{14}	7		20	3.5	50	500	200	4/4001
S_{15}	10		20	3.5	50	500	200	4/4001
S_{16}	15		20	3.5	50	500	200	4/4001
S_{17}	20		20	3.5	50	500	200	4/4001
S_{18}	25		20	3.5	50	500	200	4/4001
S_{19}	30		20	3.5	50	500	200	4/4001
S_{20}	35		20	3.5	50	500	200	4/4001
S_{21}	1		30	3.5	50	500	200	5/3334
S_{22}	3		30	3.5	50	500	200	5/3334
S_{23}	5		30	3.5	50	500	200	5/3334
S_{24}	7		30	3.5	50	500	200	5/3334
S_{25}	10		30	3.5	50	500	200	5/4001
S_{26}	15		30	3.5	50	500	200	5/3334
S_{27}	20		30	3.5	50	500	200	5/4001
S_{28}	25		30	3.5	50	500	200	5/3334
S_{29}	30		30	3.5	50	500	200	5/4001
S_{30}	35		30	3.5	50	500	200	5/3334
S_{31}	1		33	2.4	40	520	150	5/3031
S_{32}	3		33	2.4	40	520	150	5/3031
S_{33}	5		33	2.4	40	520	150	5/3031
S_{34}	7		33	2.4	40	520	150	5/3031
S_{35}	10		33	2.4	40	520	150	5/3031
S_{36}	15		33	2.4	40	520	150	5/3031
S_{37}	20		33	2.4	40	520	150	5/3031
S_{38}	25		33	2.4	40	520	150	5/3031
S_{39}	30		33	2.4	40	520	150	5/3031
S_{40}	35		33	2.4	40	520	150	5/3031
S_{41}	1		35	3.5	50	500	200	5/2858
S_{42}	3		35	3.5	50	500	200	5/2858
S_{43}	5		35	3.5	50	500	200	5/2858
S_{44}	7		35	3.5	50	500	200	5/2858
S_{45}	10		35	3.5	50	500	200	5/2858
S_{46}	15		35	3.5	50	500	200	5/2858
S_{47}	20		35	3.5	50	500	200	5/2858
S_{48}	25		35	3.5	50	500	200	5/2858
S_{49}	30		35	3.5	50	500	200	5/2858
S_{50}	35		35	3.5	50	500	200	5/2858
S_{51}	1		40	3.5	50	500	200	5/2501
S_{52}	3		40	3.5	50	500	200	5/2501
S_{53}	5		40	3.5	50	500	200	5/2501
S_{54}	7		40	3.5	50	500	200	5/2501
S_{55}	10		40	3.5	50	500	200	5/2501
S_{56}	15		40	3.5	50	500	200	5/2501
S_{57}	20		40	3.5	50	500	200	5/2501
S_{58}	25		40	3.5	50	500	200	5/2501
S_{59}	30		40	3.5	50	500	200	5/2501
S_{60}	35		40	3.5	50	500	200	5/2501
Type # 2: Diode-Bridge Rectifier as Non-Linear Load with R_{NL} and C_{NL}								
Sample No.	$R_{NL}\ [\Omega]$	$C_{NL}\ [\mu F]$	$T_s\ [\mu s]$	$L\ [mH]$	$C\ [\mu F]$	$V_{dc}\ [V]$	$v_c^*\ [V]$	# of cycles/samples
S_{61}	60	3000	33	3.5	40	500	200	5/3031
S_{62}	30	3000	33	3.5	40	500	200	5/3031
S_{63}	10	3000	33	3.5	40	500	200	5/3031
S_{64}	200	3000	33	3.5	40	500	200	5/3031
S_{65}	100	3000	33	3.5	40	500	200	5/3031
S_{66}	900	3000	33	3.5	40	500	200	5/3031
S_{67}	1000	100	33	3.5	40	500	200	5/3031
S_{68}	60	100	33	3.5	40	500	200	5/3031
S_{69}	100	500	33	3.5	40	500	200	5/3031
S_{70}	100	1000	33	3.5	40	500	200	5/3031