



Tortech

Total Transformer Solutions ABN. 31 801 764 359

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Why are Tortech step-down transformers so much more energy efficient?

The reason the Tortech range(>100va ratings) has such low idle current AND idle watts loss is due to the core construction of the toroidal transformer magnetic core.

The toroidal transformer uses better quality core steel (grain orientated silicon steel) that has lower losses than conventional EI transformers and the toroid transformer has no air gaps in the magnetic path of the core, further reducing the losses due to an unimpeded path for the magnetic flux to circulate.

How to calculate total power consumption per year:

Idle power in Watts x 24 x 365 / 1000 = KW Hour per Year

Note: If the input switch to the transformer is turned off there is no idle current losses.

TORTECH USA (110V) STEP DOWN TRANSFORMERS TYPICAL IDLE (NO LOAD) INPUT CURRENT:

Part number	no load/Input current (mA)	Idle Watts	Efficiency %	Part number	no load/Input current (mA)	Idle Watts	Efficiency %
SD110-100A*	30	4	86	SD110-50*	42	6	78
SD110-300A	15	1.7	92	SD110-100	9	0.7	86.5
SD110-500A	23	2	95	SD110-250	18	1.5	90
SD110-1010A	32	2.5	96	SD110-500	34	2.4	93
SD110-1500A	42	4	97	SD110-1010	46	5	95
SD110-2000A	40	5	97	SD110-1500	72	7	95.2
SD110-2400A	40	6.5	97.5	SD110-2000	53	9	96
				SD110-2400	70	13	96
				SD110-3500	65	17	96.7



TORTECH USA (110V) STEP DOWN TRANSFORMERS TYPICAL IDLE (NO OAD) INPUT CURRENT:

Part number	no load/Input current (mA)	Idle Watts	Efficiency %	Part number	no load/Input current (mA)	Idle watts	Efficiency %
SD100-100A*	28	4	86	SD100-50*	42	6	78
SD100-300A	20	1.7	92	SD100-100	15	0.7	86
SD100-500A	20	2	95	SD100-300	15	1.5	90
SD100-1010A	40	2.5	96	SD100-500	30	2.4	93
SD100-2000A	45	5	97	SD100-1010	45	5	95
				SD100-1500	45	7.5	95.2
				SD100-2000	50	9	96

TORTECH STEP UP (USA, JAPAN to AUS 240V) TRANSFORMERS IDLE (NO LOAD) INPUT CURRENT:

Part number	no load/Input current (mA)	Idle watts	Efficiency %
SUA110-100A *	105	4	86
SUA110-300A	25	1.7	92
SUA110-500A	20	2	95
SUA110-1000A	45	2.5	96
SUA110-2000A	70	5	97

**Not toroidal transformers.*

It should be noted that these numbers differ from batch to batch and should be used as a guide only.