

# TAL A46

## 180 - 512 kVA



Leroy-Somer is a leading global supplier of alternators for emergency power. Our new TAL low voltage alternators, with optimal performance for commercial and industrial applications, are a simple, efficient solution for your onsite power requirements.

Leroy-Somer's TAL alternators are specially designed to meet the power needs of telecom towers and commercial and industrial buildings. TAL is compatible with most engine brands.

### Common Data

Insulation class	H	Excitation system	SHUNT	AREP / PMG
Winding pitch	2/3 (Winding 6S)	AVR type	R 150	R 180
Number of wires	6	Voltage regulation (*)	± 1 %	
Protection	IP 23	Total Harmonic distortion THD (**) in no-load ....:	< 3.5 % according to C.E.I.	
Altitude	≤ 1000 m	Total Harmonic distortion THD (**) in linear load:	< 5 % according to C.E.I.	
Overspeed	2250 R.P.M.	Waveform: NEMA = TIF (**)	< 50	
Air flow (m³/s)	50Hz : 0.48 60Hz : 0.58	Waveform: I.E.C. = THF (**)	< 2%	

(\*) Steady state (\*\*) Total harmonic distortion between phases, no-load or on-load (non-distorting)

### Ratings (50 Hz – 1500 r.p.m and 60 Hz – 1800 r.p.m.)

kVA / kW - P.F. = 0.8															
TAL A46		50 Hz - 1500 R.P.M.						60 Hz - 1800 R.P.M.							
Duty/T°C		Continuous / 40°C			Stand-by / 27°C			Continuous / 40°C				Stand-by / 27°C			
Class/T°K		H / 125°K			H / 163°K			H / 125°K				H / 163°K			
		Rating kVA			Rating kVA			Rating kVA				Rating kVA			
Phase		3 ph.			3 ph.			3 ph.				3 ph.			
Y		380V	400V	415V	380V	400V	415V	380V	416V	440V	480V	380V	416V	440V	480V
Δ		220V	230V	240V	220V	230V	240V	220V	240V	254V	277V	220V	240V	254V	277V
TAL-A46-A		180	180	180	200	200	200	180	195	210	225	200	215	230	250
TAL-A46-B		200	200	200	220	220	220	200	215	230	250	220	237	253	275
TAL-A46-C		230	230	230	253	253	253	226	250	262	288	250	275	288	316
TAL-A46-D		240	250	250	264	275	275	245	265	280	313	270	292	308	344
TAL-A46-E		275	275	275	303	303	305	275	300	315	344	303	330	347	378
TAL-A46-F		290	300	300	320	330	330	290	315	340	375	320	347	374	413
TAL-A46-G		325	325	325	360	360	360	315	345	365	406	347	380	402	447
TAL-A46-H		350	365	365	385	400	400	345	375	400	455	380	413	440	500
TAL-A46-J		400	410	410	440	450	450	450	480	500	512	500	530	550	581

Leroy-Somer™

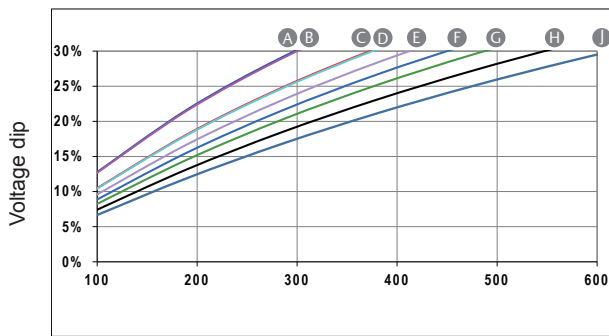
### Efficiencies (%)

#### Class H / 40 ° C

	Three Phase: 400 V - 50 Hz										Three Phase: 480 V - 60 Hz										
	P.F. = 0.8					P.F. = 1					P.F. = 0.8					P.F. = 1					
	1/4	2/4	3/4	4/4	St.By	1/4	2/4	3/4	4/4	St.By	1/4	2/4	3/4	4/4	St.By	1/4	2/4	3/4	4/4	St.By	
<b>TAL-A46-A</b>	89.9	92.4	92.3	91.7	91.4	91.1	94.1	94.6	94.4	94.2	<b>TAL-A46-A</b>	88.9	92.1	92.4	92.0	91.8	89.9	93.5	94.3	94.4	94.3
<b>TAL-A46-B</b>	90.5	92.4	92.2	91.3	90.9	91.8	94.3	94.5	94.2	94.0	<b>TAL-A46-B</b>	89.6	92.3	92.3	91.7	91.4	90.6	93.8	94.4	94.3	94.1
<b>TAL-A46-C</b>	91.4	92.9	92.5	91.5	91.1	92.6	94.7	94.8	94.4	94.1	<b>TAL-A46-C</b>	90.6	92.8	92.6	91.9	91.6	91.6	94.3	94.7	94.4	94.3
<b>TAL-A46-D</b>	91.7	92.9	92.3	91.2	90.7	93.0	94.8	94.7	94.2	93.9	<b>TAL-A46-D</b>	91.0	92.8	92.5	91.6	91.2	92.1	94.4	94.6	94.3	94.1
<b>TAL-A46-E</b>	92.2	93.7	93.3	92.5	92.1	93.3	95.2	95.3	95.0	94.8	<b>TAL-A46-E</b>	91.5	93.5	93.5	92.8	92.5	92.3	94.9	95.2	95.0	94.9
<b>TAL-A46-F</b>	92.1	93.6	93.3	92.5	92.2	93.2	95.2	95.4	95.0	94.8	<b>TAL-A46-F</b>	91.2	93.5	93.5	93.0	92.7	92.1	94.8	95.3	95.1	95.0
<b>TAL-A46-G</b>	92.1	93.9	93.8	93.2	92.9	93.0	95.3	95.6	95.4	95.3	<b>TAL-A46-G</b>	91.3	93.7	93.9	93.5	93.2	92.1	94.9	95.5	95.4	95.3
<b>TAL-A46-H</b>	92.5	94.2	94.1	93.5	93.2	93.4	95.6	95.8	95.6	95.5	<b>TAL-A46-H</b>	91.6	94.0	94.2	93.9	93.7	92.4	95.1	95.7	95.7	95.6
<b>TAL-A46-J</b>	92.8	94.6	94.6	94.1	93.9	93.6	95.7	96.1	96	95.9	<b>TAL-A46-J</b>	92.1	94.4	94.6	94.3	94.1	92.7	95.4	96	96	95.9

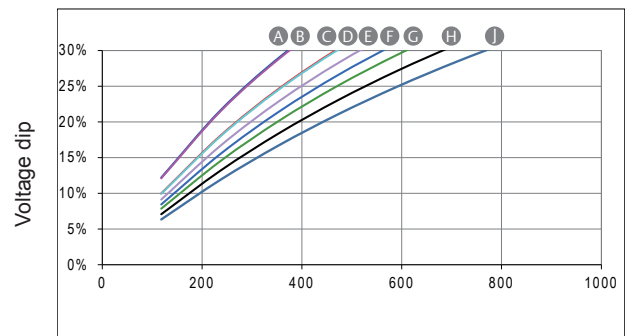
### Transient Voltage Variation – Motor Starting

400V - 50 Hz



KVA at P.F.=0.6

480V - 60 Hz



KVA at P.F.=0.6

Locked Rotor – kVA at 0.6 Power Factor