

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 |
| Winding Pitch | 2/3 (Winding 6S) | A.V.R. Model | R120 |
| Leads | 6 | Voltage Regulation (*) | ± 1 % |
| Drip Proof | IP 23 | Total Harmonic THD (**) in no-load | < 3.5 % according to C.E.I. |
| Altitude | ≤ 1000 m | Total Harmonic THD (**) in linear load: | < 5 % according to C.E.I. |
| Overspeed | 2250 R.P.M. | Waveform NEMA = TIF (**) | < 50 |
| (*) Steady state duty. (**) Total harmonic content line to line, at no loads of full rated linear and balanced loads. | | Waveform I.E.C. = THF (**) | < 2% |

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

| kVA / kW - P.F. = 0.8 | | | | | | | | | | | | | | | | | |
|-----------------------|---------------------|-------|-------|-------|--------------|------|------|-----|---------------------|-------------------|------|------|------|--------------|------|------|--|
| TAL A44 | 50 Hz - 1500 R.P.M. | | | | | | | | 60 Hz - 1800 R.P.M. | | | | | | | | |
| Duty/T°C | Continuous / 40°C | | | | St. By/ 27°C | | | | Reactance | Continuous / 40°C | | | | St. 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 | x'd | x'd | 380V | 416V | 440V | 480V | 380V | 416V | 440V | 480V | |
| Δ | 220V | 230V | 240V | 220V | 230V | 240V | x'd | x'd | 220V | 240V | 254V | 277V | 220V | 240V | 254V | 277V | |
| TAL-A44-C | 81 | 85 | 85 | 88 | 93.5 | 93.5 | 15.7 | 9.8 | 81 | 88 | 93 | 102 | 89 | 97 | 102 | 112 | |
| TAL-A44-D | 100 | 100 | 95 | 110 | 110 | 105 | 15.1 | 9.4 | 95 | 104 | 109 | 120 | 104 | 114 | 120 | 132 | |
| TAL-A44-E | 119 | 125 | 119 | 130 | 137.5 | 130 | 14.8 | 9.3 | 119 | 130 | 137 | 150 | 130 | 143 | 150 | 165 | |
| TAL-A44-H | 137.5 | 137.5 | 128 | 151.5 | 151.5 | 141 | 14.1 | 8.8 | 130 | 143 | 150 | 165 | 143 | 157 | 165 | 182 | |
| TAL-A44-J | 143 | 150 | 143 | 157 | 165 | 157 | 13.1 | 8.2 | 142 | 156 | 164 | 180 | 156 | 171 | 180 | 198 | |
| TAL-A44-K | 161.5 | 170 | 161.5 | 178 | 187.5 | 178 | 12.4 | 7.8 | 161 | 177 | 186 | 204 | 177 | 194 | 204 | 224 | |

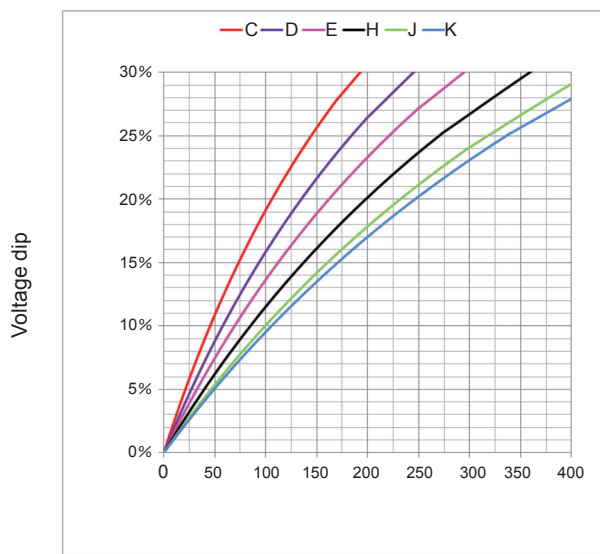
Efficiencies (%)

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 | |
| TAL-A44-C | 84.1 | 89.8 | 90.3 | 87.6 | 85.9 | 85.6 | 91.8 | 93.5 | 92.7 | 91.9 | TAL-A44-C | 83.9 | 89.3 | 90.6 | 88.7 | 87.1 | 85.6 | 90.4 | 93.2 | 92.9 | 92.1 |
| TAL-A44-D | 84.6 | 90.5 | 91.3 | 89.0 | 87.8 | 86.1 | 92.3 | 94.1 | 93.5 | 92.4 | TAL-A44-D | 84.7 | 90.0 | 91.5 | 90.0 | 88.8 | 86.3 | 91.0 | 93.9 | 93.7 | 93.0 |
| TAL-A44-E | 86.2 | 91.5 | 92.0 | 89.4 | 87.8 | 87.6 | 93.1 | 94.7 | 93.9 | 93.2 | TAL-A44-E | 86.6 | 91.1 | 92.3 | 90.4 | 89.1 | 88.2 | 92.0 | 94.5 | 94.1 | 93.4 |
| TAL-A44-H | 86.2 | 91.8 | 92.7 | 90.8 | 89.6 | 87.6 | 93.3 | 95.1 | 94.6 | 94.0 | TAL-A44-H | 86.7 | 91.4 | 92.9 | 91.6 | 90.7 | 88.2 | 92.2 | 94.9 | 94.7 | 94.4 |
| TAL-A44-J | 86.3 | 91.9 | 92.9 | 91.0 | 89.8 | 87.6 | 93.4 | 95.2 | 94.7 | 94.1 | TAL-A44-J | 86.9 | 91.6 | 93.1 | 91.8 | 90.9 | 88.4 | 92.3 | 95.0 | 94.9 | 94.5 |
| TAL-A44-K | 87.8 | 92.7 | 93.4 | 91.4 | 90.0 | 89.0 | 94.0 | 95.6 | 94.9 | 94.3 | TAL-A44-K | 88.5 | 92.4 | 93.6 | 92.2 | 91.2 | 89.9 | 93.5 | 95.4 | 95.1 | 94.7 |

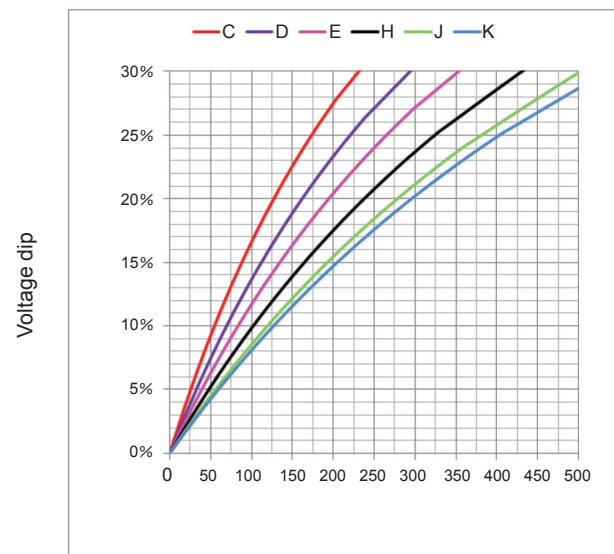
Transient Voltage Variation – Motor Starting

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