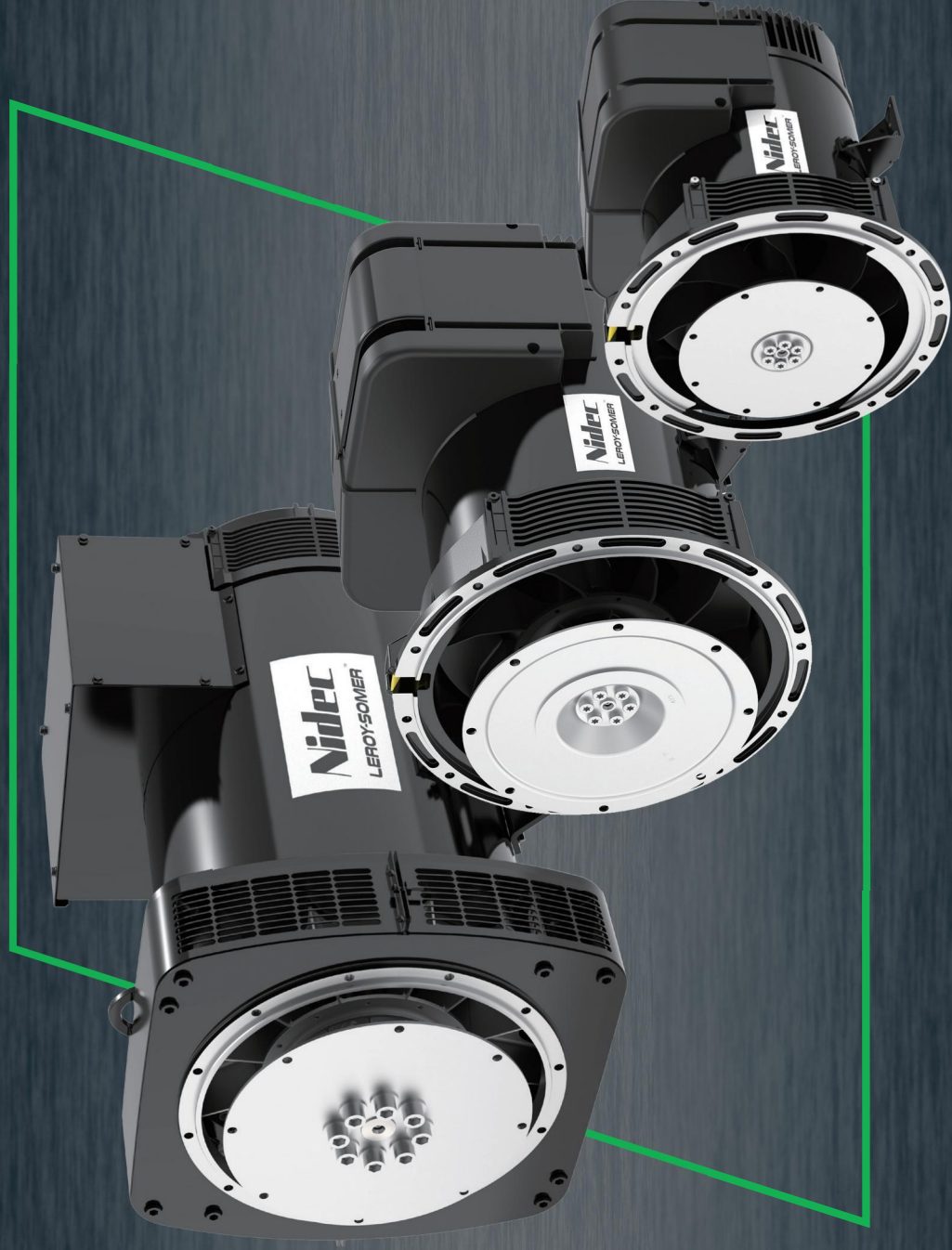


Nidec

Power



Low Voltage Alternators - 4 pole

TAL-A40 TAL-A42 TAL-A44

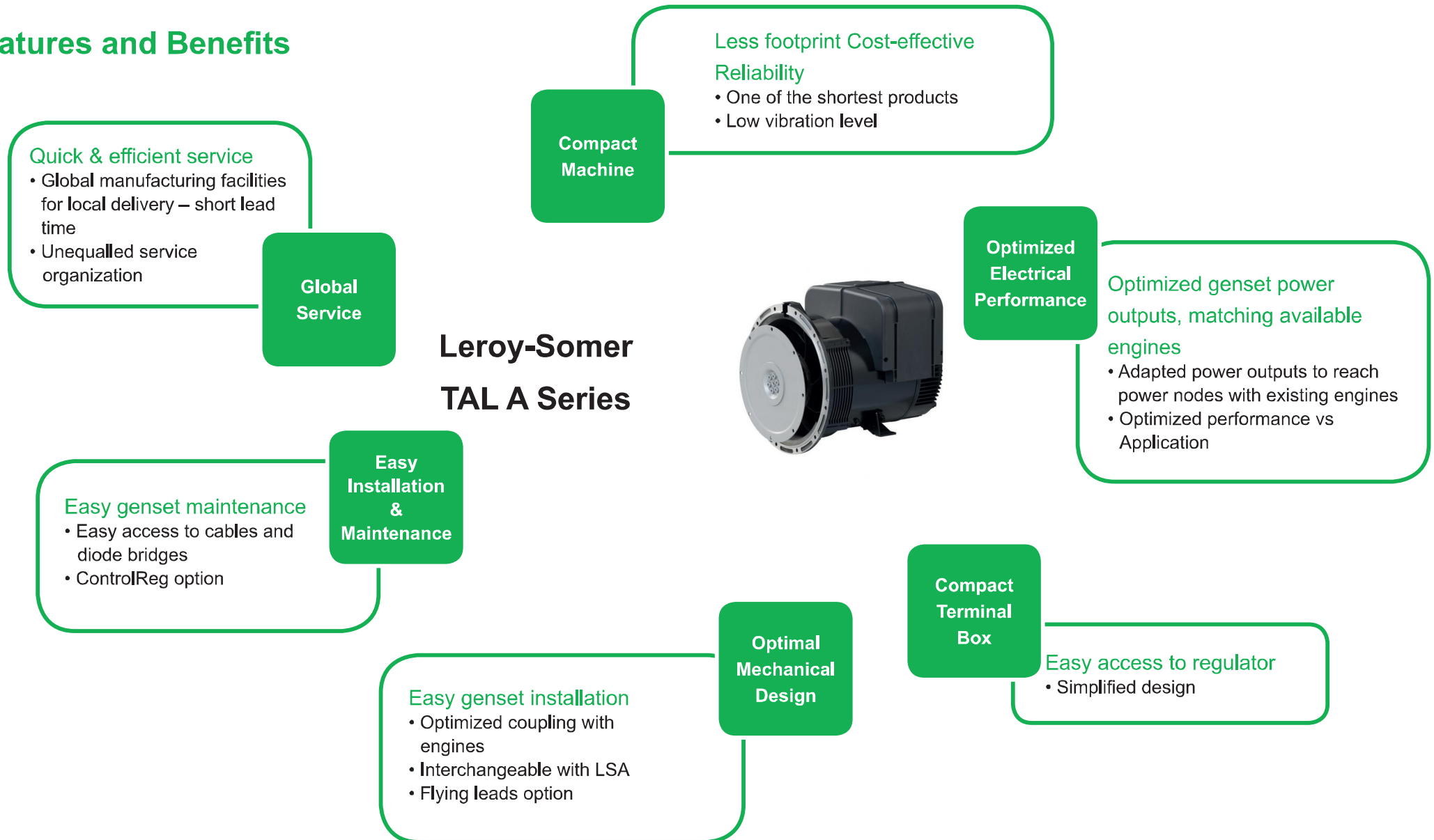
Electrical and mechanical data

13 to 200 kVA - 50 Hz / 15.5 to 250 kVA - 60 Hz

LEROY-SOMER™

Product Feature

Features and Benefits



Low Voltage Alternators - 4 pole

TAL-A40 TAL-A42 TAL-A44

Adapted to needs

The TAL alternator range is designed to meet the specific needs of telecommunications, commercial & industrial markets, as well as prime and stand-by power applications.

Compliance with internationally recognized standards

4 Pole Alternators are in compliance to the main international standards and regulations: -IEC 60034, NEMA MG 1.32-33, VDE 0530, ISO 8528/3 on request and depending on voltages, marine regulations, etc.

It can be integrated into a CE marked generator.

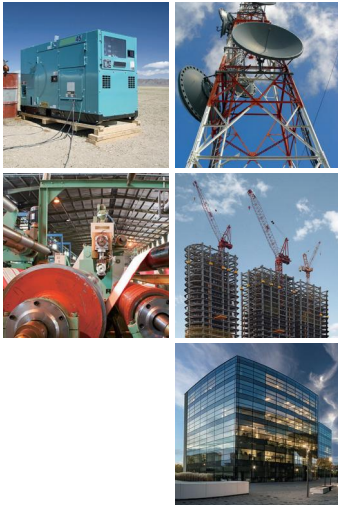
Alternators are designed, manufactured and marketed in an ISO 9001 and ISO14001 environments.

Electrical design

- Class H insulation
- Low voltage winding
- 4-terminal plate
- Optimized performance

Robust design

- Compact and rugged assembly to withstand engine vibrations
- Steel frame
- Aluminum flanges and shields
- Single-bearing design to be suitable with most diesel engines
- Sealed for life bearing
- Direction of rotation: clockwise



Excitation and regulation system suited to the application

	Excitation system				Remote voltage potentiometer	C.T. for paralleling
	AVR	SHUNT	AREP+ (option)	PMG (Option Except TAL A40)		
Three-phase 6-wire	R120	Standard				
	R150	Option			✓	
	R180		Standard	Standard	✓	✓
	D350	Option	Option	Option	✓	✓
Three-phase 12-wire*	R120	Standard				
	R250	Option Except TAL A40/42			✓	
	R180		Standard	Standard	✓	✓
	D350	Option	Option	Option	✓	✓
Single-phase	R121	Standard			✓	
	R221	Option			✓	

✓ : Possible option

Compact terminal box

- Easy access to AVR and terminals

Environment and protection

- The alternators are IP 23
- Standard winding protection for non-harsh environment with relative humidity ≤ 95%

Available options

- AREP+ & PMG (PMG suitable for TAL A42 and above)
- 12-lead (12-lead is standard option for TAL A40 series)
- Customized painting
- Space heater
- Droop kit for alternator paralleling
- CE mark
- Two-bearing version (TAL A44 only)
- Voltage trimmer (AVR upgrade to R150)
- Winding protection for harsh environments and relative humidity greater than 95% (system 2 - 4): de-rating ratio according to 3% (system 2 and above protection system will be proposed for rental application, prevented from potential hash environment)

Low Voltage Alternators - 4 pole

TAL-A40 - Three-phase 13 to 25 kVA - 50 Hz / 15 to 30 kVA - 60 Hz

General characteristics - 6 & 12-wire

Insulation class	H	Excitation system 6 wires	SHUNT	AREP+
Winding pitch	2/3 (wind.6-12-wire)	AVR type	R120	R180
Number of wires	12	Excitation system 12 wires	SHUNT	AREP+
Protection	IP 23	AVR type	R120	R180
Altitude	≤ 1000 m	Voltage regulation (*)	± 1 %	± 0.5 %
Overspeed	2250 R.P.M.	Waveform: NEMA = T1F (**)		< 50
Air flow 50 Hz (m³/s)	0.08	Waveform: I.E.C. : THF (**)		< 2%
Air flow 60 Hz (m³/s)	0.10			
AREP+ Short-circuit current = 2.7 In: 5 seconds (*)				

(*) Steady state (**) between phases

*D350: 2.7In 10 seconds

Ratings 50 Hz - 1500 R.P.M. - 6 & 12-wire

kVA / kW - P.F. = 0.8																	
Duty / T° C		Continuous / 40 °C				Continuous / 40 °C				Stand-by / 40 °C				Stand-by / 27 °C			
Class / T° K		H:125K				F:105K				H:150K				H:163K			
Phase		3ph _n		1ph _n *		3ph _n		1ph _n *		3ph _n		1ph _n *		3ph _n		1ph _n *	
Y		380V	400V	415V		380V	400V	415V		380V	400V	415V		380V	400V	415V	
Δ		220V	230V	240V		220V	230V	240V		220V	230V	240V		220V	230V	240V	
YY		190V	200V	208V		190V	200V	208V		190V	200V	208V		190V	200V	208V	
ΔΔ		230V				230V				230V				230V			
TAL-A40-C	kVA	13	13	13	7	12	12	12	6	13.5	13.5	13.5	7.5	14	14	14	8
	kW	10.4	10.4	10.4	5.6	9.6	9.6	9.6	4.8	10.8	10.8	10.8	6.0	11.2	11.2	11.2	6.4
TAL A40-D	kVA	15	15	15	9	13.5	13.5	13.5	8	15.8	15.8	15.8	9.5	16.5	16.5	16.5	10.3
	kW	12.0	12.0	12.0	7.2	10.8	10.8	10.8	6.4	12.6	12.6	12.6	7.6	13.2	13.2	13.2	8.2
TAL-A40-E	kVA	17.5	17.5	17.5	10.5	16	16	16	9.5	18.4	18.4	18.4	11	19.3	19.3	19.3	12
	kW	14.0	14.0	14.0	8.4	12.8	12.8	12.8	7.6	14.7	14.7	14.7	8.8	15.4	15.4	15.4	9.6
TAL-A40-F	kVA	20	20	20	12	18	18	18	11	21	21	21	12.5	22	22	22	13.4
	kW	16.0	16.0	16.0	9.6	14.4	14.4	14.4	8.8	16.8	16.8	16.8	10.0	17.6	17.6	17.6	10.8
TAL-A40-G	kVA	25	25	25	15	22.5	22.5	22.5	13.5	26	26	26	16	27.5	27.5	27.5	16.6
	kW	20.0	20.0	20.0	12.0	18.0	18.0	18.0	10.8	20.8	20.8	20.8	12.8	22.0	22.0	22.0	13.3

*please consult factory for 1ph. and 3ph. compatible use

Ratings 60 Hz - 1800 R.P.M. - 6 & 12-wire

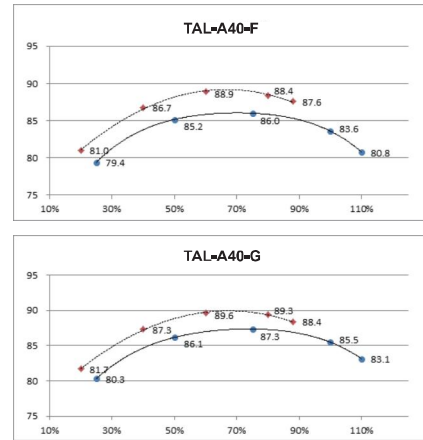
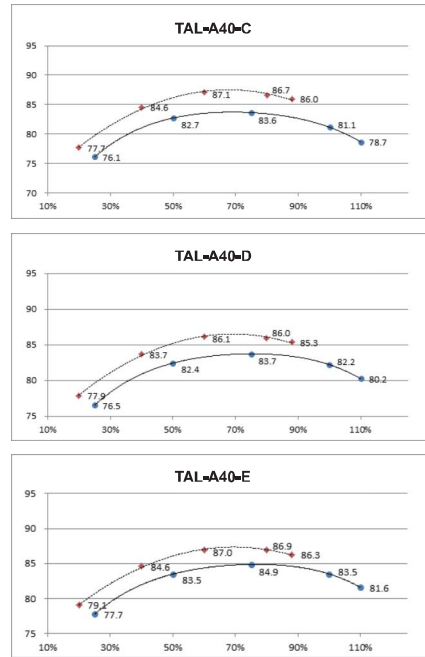
kVA / kW = P.F. = 0,8																					
Duty / T° C		Continuous / 40 °C					Continuous / 40 °C					Stand-by / 40 °C				Stand-by / 27 °C					
Class / T° K		H:125K					F:105K					H:150K				H:163K					
Phase		3ph _n			1ph _n *		3ph _n			1ph _n *		3ph _n			1ph _n *		3ph _n			1ph _n *	
Y		380V	416V	440V	480V		380V	416V	440V	480V		380V	416V	440V	480V		380V	416V	440V	480V	
Δ		220V	240V	254V	277V		220V	240V	254V	277V		220V	240V	254V	277V		220V	240V	254V	277V	
YY		190V	208V	220V	240V		190V	208V	220V	240V		190V	208V	220V	240V		190V	208V	220V	240V	
ΔΔ		240V					240V					240V				240V					
TAL-A40-C	kVA	12	13,4	14	15,5	9	11	12	13	14	8	13	14	15	16	9,5	13,5	15	15,5	17	10
	kW	9,6	10,7	11,2	12,4	7,2	8,8	9,6	10,4	11,2	6,4	10,4	11,2	12,0	12,8	7,6	10,8	12,0	12,4	13,6	8,0
TAL-A40-D	kVA	14	15,3	16	18	11,6	13	14	14,5	16,5	10,4	15	16	17	19	12	15,8	16,8	17,8	20	13
	kW	11,2	12,2	12,8	14,4	9,3	10,4	11,2	11,6	13,2	8,3	12,0	12,8	13,6	15,2	9,6	12,6	13,4	14,2	16,0	10,4
TAL-A40-E	kVA	17	17,9	19	21	13	15	16	17	19	12	18	19	20	22	14	18,5	19,6	20,8	23	14
	kW	13,6	14,3	15,2	16,8	10,4	12,0	12,8	13,6	15,2	9,6	14,4	15,2	16,0	17,6	11,2	14,8	15,7	16,6	18,4	11,2
TAL-A40-F	kVA	19	20,5	21,5	24	14	17	18,5	19,5	22	12,5	20	21,5	23	25	14,6	21	22,5	24	26	15
	kW	15,2	16,4	17,2	19,2	11,2	13,6	14,8	15,6	17,6	10,0	16,0	17,2	18,4	20,0	11,7	16,8	18,0	19,2	20,8	12,0
TAL-A40-G	kVA	24	26	27	30	17	21	23,5	24	27	15,4	25	27	28,5	31,5	18	26	28,5	30	33	19
	kW	19,2	20,8	21,6	24,0	13,6	16,8	18,8	19,2	21,6	12,3	20,0	21,6	22,8	25,2	14,4	20,8	22,8	24,0	26,4	15,2

*please consult factory for 1ph. and 3ph. compatible use

Low Voltage Alternators - 4 pole

TAL-A40 - Three-phase 13 to 25 kVA - 50 Hz / 15 to 30 kVA - 60 Hz

Efficiencies 400 V - 50 Hz (— P.F.: 0.8) (..... P.F.: 1) - 6 & 12-wire



Reactances (%). Time constants (ms) - Class H / 400 V - 6 & 12-wire

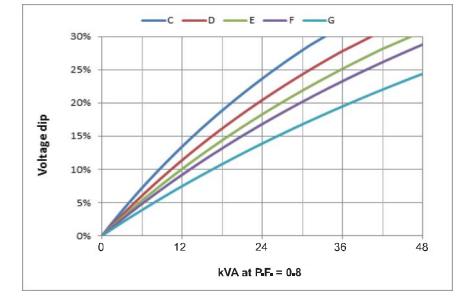
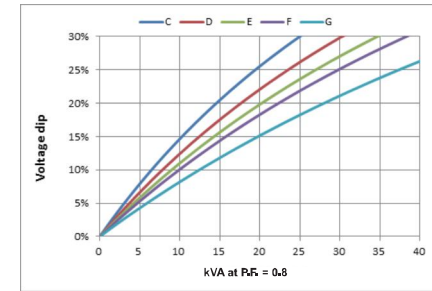
		TAL-A40-C	TAL-A40-D	TAL-A40-E	TAL-A40-F	TAL-A40-G
Kcc	Short-circuit ratio	0,55	0,55	0,54	0,45	0,45
Xd	Direct-axis synchro. reactance unsaturated	217	209	222	251	256
Xq	Quadrature-axis synchro. reactance unsaturated	130	125	133	151	153
T'do	No-load transient time constant	789	826	850	873	914
X'd	Direct-axis transient reactance saturated	19,1	17,7	18,2	19,2	19,1
T'd	Short-circuit transient time constant	74	74	74	74	74
X''d	Direct-axis subtransient reactance saturated	9,5	8,8	9,0	9,5	9,5
T''d	Subtransient time constant	7,0	7,0	7,0	7,0	7,0
X''q	Quadrature-axis subtransient reactance saturated	20,0	18,6	19,0	20,1	20,0
Xo	Zero sequence reactance	0,13	0,13	0,14	0,15	0,16
X2	Negative sequence reactance saturated	14,8	13,7	14,0	14,8	14,7
Ta	Armature time constant	11	11	11	11	11

Other class H / 400 V data		TAL-A40-C	TAL-A40-D	TAL-A40-E	TAL-A40-F	TAL-A40-G
ms	Response time (AU = 20%)	500	500	500	500	500
W	No-load losses	483	546	578	630	704
W	Heat dissipation	2424	2599	2766	3139	3392

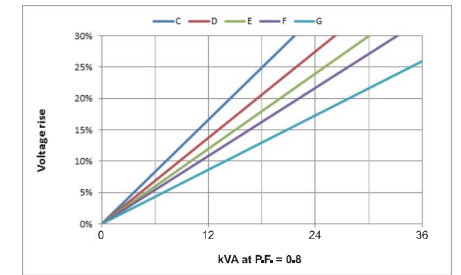
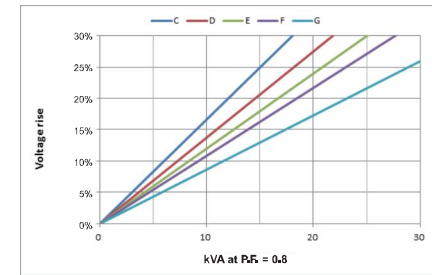
Low Voltage Alternators - 4 pole

TAL-A40 - Three-phase 13 to 25 kVA - 50 Hz / 15 to 30 kVA - 60 Hz

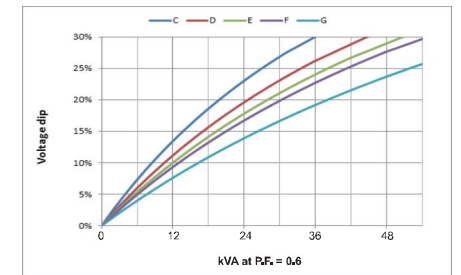
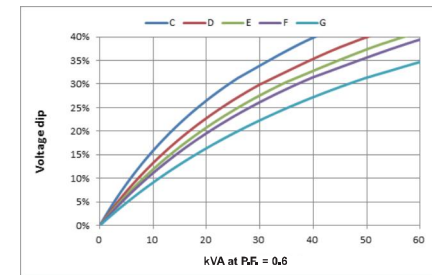
Transient voltage variation 400V - 50 Hz



Phase loading (SHUNT/AREP+) - kVA at P.F. = 0.8



Load shedding (SHUNT/AREP+) - kVA at P.F. = 0.8



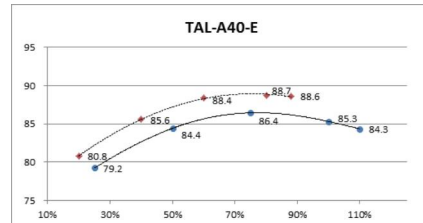
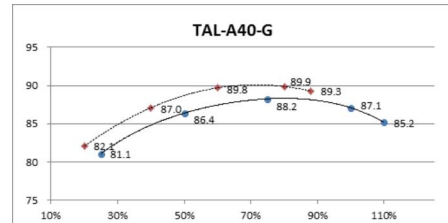
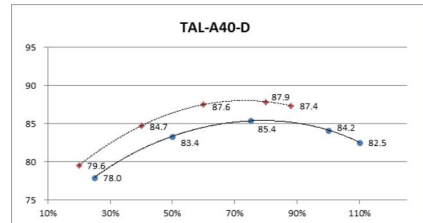
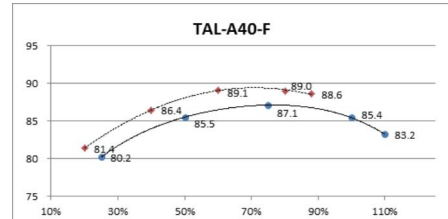
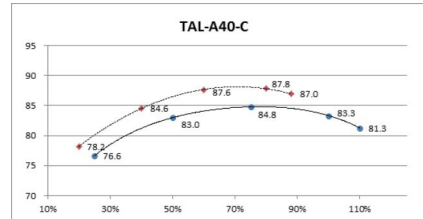
Motor starting (SHUNT/AREP+) - locked rotor kVA at P.F. = 0.6

- 1) For a starting P.F. other than 0.6, the starting kVA must be multiplied by $K = \sin P.F. / 0.8$
- 2) For voltages other than 400V (Y), 230V (Δ) at 50 Hz, then kVA must be multiplied by $(400/U)^2$ or $(230/U)^2$.

Low Voltage Alternators - 4 pole

TAL-A40 - Three-phase 13 to 25 kVA - 50 Hz / 15 to 30 kVA - 60 Hz

Efficiencies 480 V - 60 Hz (— P.F.: 0.8) (..... P.F.: 1) - 6 & 12-wire



Reactances (%). Time constants (ms) - Class H / 480 V - 6 & 12-wire

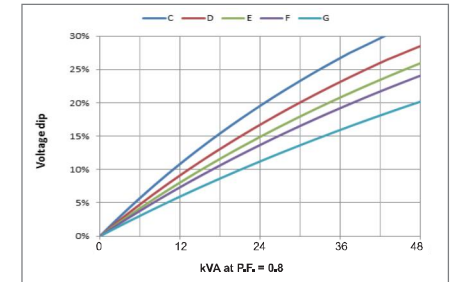
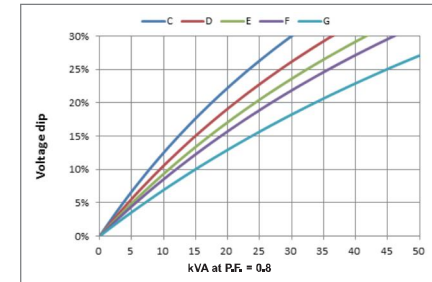
		TAL-A40-C	TAL-A40-D	TAL-A40-E	TAL-A40-F	TAL-A40-G
Kcc	Short-circuit ratio	0.55	0.55	0.54	0.45	0.45
Xd	Direct-axis synchro, reactance unsaturated	217	209	222	251	256
Xq	Quadrature-axis synchro, reactance unsaturated	130	125	133	151	153
T'do	No-load transient time constant	769	826	850	873	914
X'd	Direct-axis transient reactance saturated	19.1	17.7	18.2	19.2	19.1
T'd	Short-circuit transient time constant	74	74	74	74	74
X''d	Direct-axis subtransient reactance saturated	9.5	8.8	9.0	9.5	9.5
T''d	Subtransient time constant	7.0	7.0	7.0	7.0	7.0
X''q	Quadrature-axis subtransient reactance saturated	20.0	18.6	19.0	20.1	20.0
Xo	Zero sequence reactance	0.13	0.13	0.14	0.15	0.16
X2	Negative sequence reactance saturated	14.8	13.7	14.0	14.8	14.7
Ta	Armature time constant	11	11	11	11	11

Other class H / 480 V data		TAL-A40-C	TAL-A40-D	TAL-A40-E	TAL-A40-F	TAL-A40-G
ms	Response time ($\Delta U = 20\%$)	500	500	500	500	500
W	No-load losses	696	786	832	907	1013
W	Heat dissipation	2486	2702	2895	3282	3555

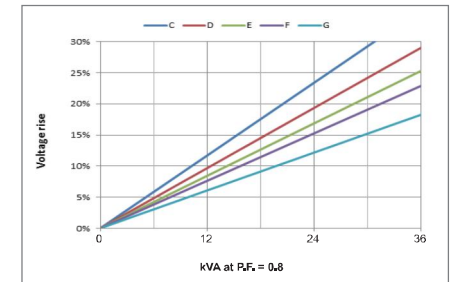
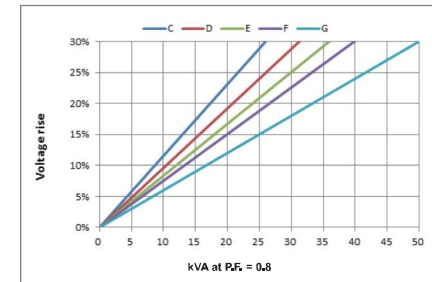
Low Voltage Alternators - 4 pole

TAL-A40 - Three-phase 13 to 25 kVA - 50 Hz / 15 to 30 kVA - 60 Hz

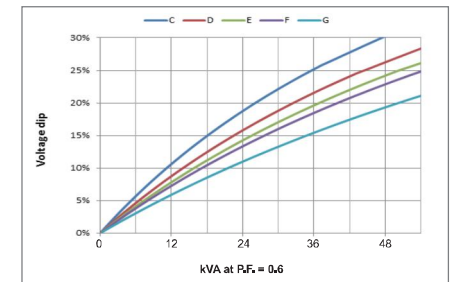
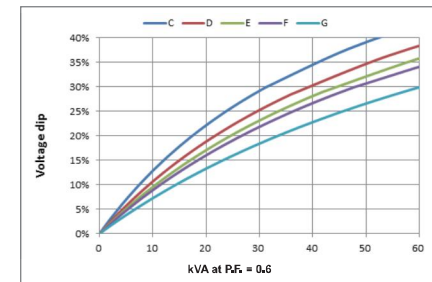
Transient voltage variation 480V - 60 Hz



Phase loading (SHUNT/AREP+) - kVA at P.F. = 0.8



Load shedding (SHUNT/AREP+) - kVA at P.F. = 0.8



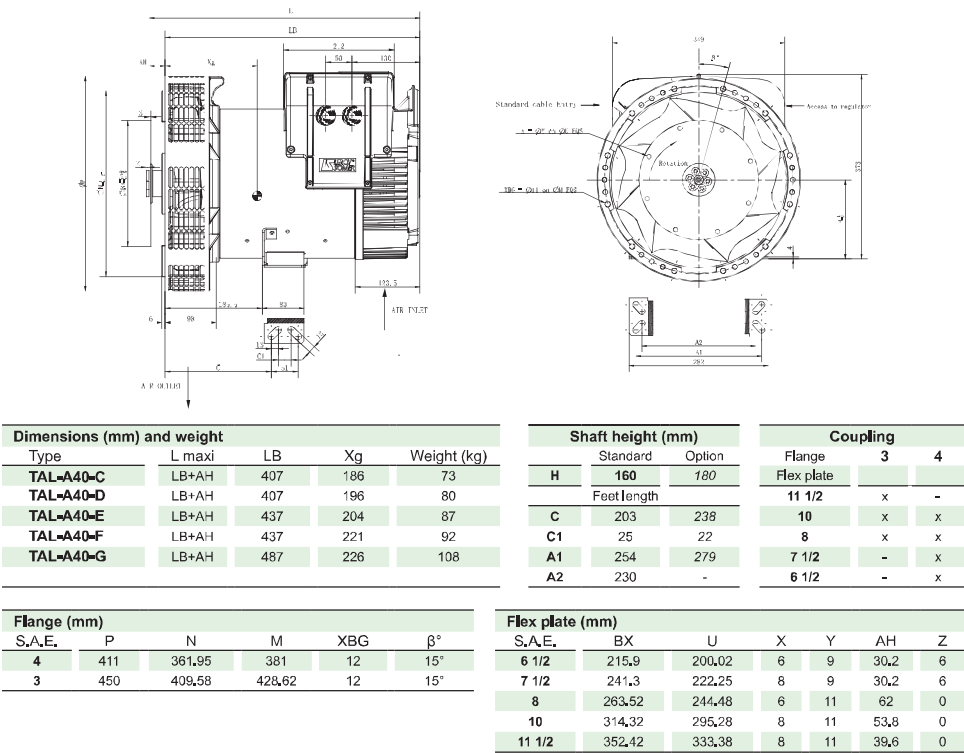
Motor starting (SHUNT/AREP+) - locked rotor kVA at P.F. = 0.6

- 1) For a starting P.F. other than 0.6, the starting kVA must be multiplied by $K = \text{Sine P.F.} / 0.8$
- 2) For voltages other than 480V (Y), 277V (Δ), 240V (YY) at 60 Hz, then kVA must be multiplied by $(480/U)^2$ or $(277/U)^2$ or $(240/U)^2$.

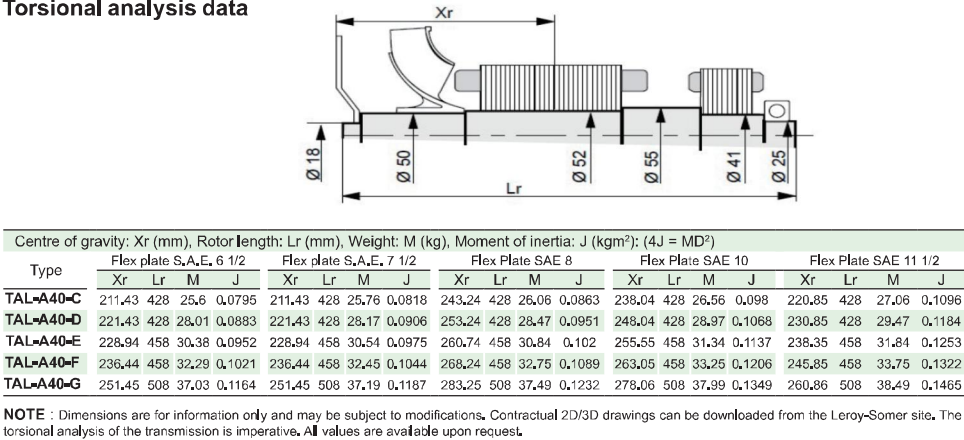
Low Voltage Alternators - 4 pole

TAL-A40 - Three-phase 13 to 25 kVA - 50 Hz / 15 to 30 kVA - 60 Hz

Single bearing general arrangement - 4, 6 & 12-wire



Torsional analysis data



Low Voltage Alternators - 4 pole

TAL-A40 - S Dedicated single-phase 10.5 to 16 kVA - 50 Hz / 11.5 to 17.5 kVA - 60 Hz

General characteristics

Insulation class	H	Excitation system	SHUNT
Winding pitch	2/3 (wind. M)	AVR type	R121
Number of wires	4	Voltage regulation (*)	± 1 %
Protection	IP 23	Waveform: NEMA = TIF (**)	< 100
Altitude	≤ 1000 m	Waveform: I.E.C. = THF (**)	< 2 %
Overspeed	2250 R.P.M.		
Air flow (m³/s)	50 Hz: 0,06 - 60 Hz: 0,07		

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

Ratings / Efficiencies 50 Hz - 1500 R.P.M.

kVA / kW - P.F. = 1(*)						
Duty / T° C	Continuous / 40 °C		Continuous / 40 °C		Stand-by / 27 °C	
Class / T° K	H / 125° K		F / 105° K		H / 163° K	
Serie (SE)	230 V	η %	230 V	230 V	230V	η %
Parallel (PA)	115 V	η %	115 V	115 V	115 V	η %
TAL-A40-C-S	10,5	82,4	9,5	11	11,5	81,2
TAL-A40-C1-S	12	84,5	11	12,5	13	83,7
TAL-A40-D-S	13	85,4	12	14	14,5	84,7
TAL-A40-E-S	14,5	86,3	13	15,5	16	85,6
TAL-A40-F-S	16	87,3	14,5	17	17,5	86,7

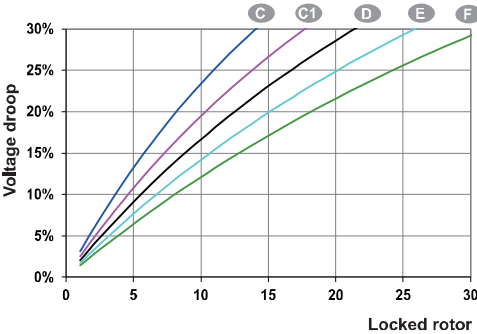
(*) For P.F. 0.8: derating 15%

Ratings / Efficiencies 60 Hz - 1800 R.P.M.

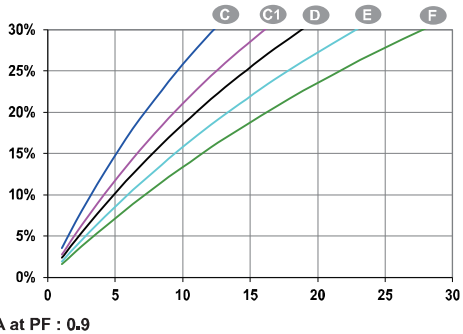
kVA / kW - P.F. = 1(*)						
Duty / T° C	Continuous / 40 °C		Continuous / 40 °C		Stand-by / 27 °C	
Class / T° K	H / 125° K		F / 105° K		H / 163° K	
Serie (SE)	240 V	η %	240 V	240 V	240V	η %
Parallel (PA)	120 V	η %	120 V	120 V	120 V	η %
TAL-A40-C-S	11,5	82,6	10,5	12	12,5	81,7
TAL-A40-C1-S	13,5	84,2	12,5	14,5	15	83,4
TAL-A40-D-S	14,5	85	13	15,5	16	84,3
TAL-A40-E-S	16	85,9	14,5	17	17,5	85,3
TAL-A40-F-S	17,5	86,9	16	18,5	19,5	86,3

(*) For P.F. 0.8: derating 15%

Starting motor 230V - 50Hz



Starting motor 240V - 60Hz

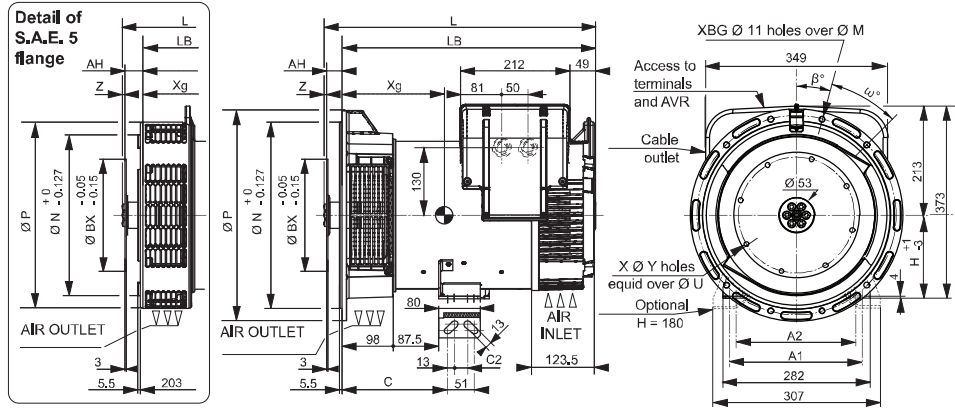


Locked rotor kVA at PF : 0.9

Low Voltage Alternators - 4 pole

TAL-A40 - S Single-phase

Single bearing general arrangement



Dimensions (mm) and weight				
Type	L maxi	LB	Xg	Weight (kg)
TAL-A40-C-S	469	407	186	73
TAL-A40-C1-S	469	407	196	80
TAL-A40-D-S	499	437	204	87
TAL-A40-E-S	499	437	221	92
TAL-A40-F-S	519	457	221	102

Lmaxi = LB + AH

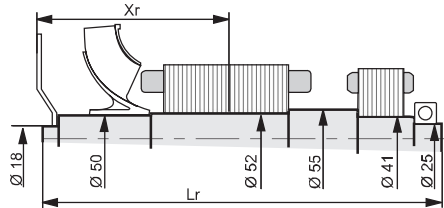
Flange (mm)						
S.A.E.	P	N	M	XBG	β°	ω °
5	358	314,32	333,38	8	22°30'	45°
4	408	361,95	381	8*	15°	30°
3	460	409,58	428,62	8*	15°	30°
-	-	-	-	-	-	-

*Four lateral holes removal on S.A.E. 3 and 4

Shaft height (mm)			Coupling			
	Standard	Option	Flange			
H	160	180	Flex plate	3	4	5
	Feet length		11 1/2	x	-	-
C	203	238	10	x	x	-
C2	25	22	8	x	x	-
A1	254	279	7 1/2	-	x	x
A2	230	-	6 1/2	-	x	x

Flex plate (mm)						
S.A.E.	BX	U	X	Y	AH	Z
11 1/2	352,42	333,38	8	11	39,6	0
10	314,32	295,28	8	11	53,8	0
8	263,52	244,48	6	11	62	0
7 1/2	241,3	222,25	8	9	30,2	6
6 1/2	215,9	200,02	6	9	30,2	6

Torsional data



Centre of gravity: Xr (mm), Rotor length: Lr (mm), Weight: M (kg), Moment of inertia: J (kgm²): (4J = MD²)																	
Flex plate		S.A.E. 6 1/2				S.A.E. 7 1/2				S.A.E. 8				S.A.E. 10			
Type	Xr	Lr	M	J	Xr	Lr	M	J	Xr	Lr	M	J	Xr	Lr	M	J	
TAL-A40-C-S	211,7	428	25,5	0,078	211,7	428	25,7	0,080	243,5	428	26	0,085	238,3	428	26,5	0,096	
TAL-A40-C1-S	221,7	428	27,9	0,087	221,7	428	28,1	0,089	253,5	428	28,4	0,094	248,3	428	28,9	0,105	
TAL-A40-D-S	229,2	458	30,3	0,094	229,2	458	30,5	0,096	261	458	30,8	0,100	255,8	458	31,3	0,112	
TAL-A40-E-S	236,7	458	32,2	0,100	236,7	458	32,4	0,103	268,5	458	32,7	0,107	263,3	458	33,2	0,119	
TAL-A40-F-S	246,7	478	35,3	0,110	246,7	478	35,4	0,113	278,5	478	35,7	0,117	273,3	478	36,2	0,129	

NOTE : Dimensions are for information only and may be subject to modifications. The torsional analysis of the transmission is imperative. All values are available upon request.

Low Voltage Alternators - 4 pole

TAL-A42 - Three-phase 30 to 63 kVA - 50 Hz / 36 to 75.6 kVA - 60 Hz

General characteristics - 6 & 12-wire

Insulation class		H	Excitation system 6 wires		SHUNT	AREP+/PMG
Winding pitch		2/3 (wind.6S = 6-wire / wind.6-12-wire)	AVR type		R120	R180
Number of wires		6 or 12	Excitation system 12 wires		SHUNT	AREP+/PMG
Protection		IP 23	AVR type		R120	R180
Altitude		≤ 1000 m	Voltage regulation (*)		± 1 %	± 0,5 %
Overspeed		2250 R.P.M.	Total Harmonic distortion THD (**) in no-load		< 3,5 %	
Air flow 50 Hz (m³/s)		0,12	Total Harmonic distortion THD (**) in linear load		< 5 %	
Air flow 60 Hz (m³/s)		0,15	Waveform: NEMA = TIF (**)		< 50	
AREP+ Short-circuit current = 2.7 In: 5 seconds (*)			Waveform : I.E.C. : THF (**)		< 2%	

*D350: 2.7In 10 seconds

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

Ratings 50 Hz - 1500 R.P.M. - 6 & 12-wire

kVA / kW - P.F. = 0,8																	
Duty / T° C		Continuous / 40 °C				Continuous / 40 °C				Stand-by / 40 °C				Stand-by / 27 °C			
Class / T° K		H:125K				F:105K				H:150K				H:163K			
Phase		3ph.		1ph.		3ph.		1ph.		3ph.		1ph.		3ph.		1ph.	
Y		380V	400V	415V		380V	400V	415V		380V	400V	415V		380V	400V	415V	
Δ		220V	230V	240V		220V	230V	240V		220V	230V	240V		220V	230V	240V	
YY		190V	200V	208V		190V	200V	208V		190V	200V	208V		190V	200V	208V	
ΔΔ		230V				230V				230V				230V			
TAL-A42-C	kVA	29	30	30	18	26	27	27	16	30	31.5	31.5	19	31	33	33	19.8
	kW	23,2	24,0	24,0	14,4	20,8	21,6	21,6	12,8	24,0	25,2	25,2	15,2	24,8	26,4	26,4	15,8
TAL-A42-E	kVA	36	38	38	22,8	32,5	34,5	34	20,5	38	40	40	24	40	42	42	25,6
	kW	28,8	30,4	30,4	18,2	26,0	27,6	27,2	16,4	30,4	32,0	32,0	19,2	32,0	33,6	33,6	20,5
TAL-A42-F	kVA	43	45	45	25	38,5	40,5	40,5	22,5	45	47	47	26	48	50	50	28
	kW	34,4	36,0	36,0	20,0	30,8	32,4	32,4	18,0	36,0	37,6	37,6	20,8	38,4	40,0	40,0	22,4
TAL-A42-G	kVA	48	50	50	27	43	45	45	24	50	52,5	52,5	28	52	55	55	30
	kW	38,4	40,0	40,0	21,6	34,4	36,0	36,0	19,2	40,0	42,0	42,0	22,4	41,6	44,0	44,0	24,0
TAL-A42-H	kVA	60	63	63	36	54	57	57	32,5	63	66	66	38	67	70	70	40
	kW	48,0	50,4	50,4	28,8	43,2	45,6	45,6	26,0	50,4	52,8	52,8	30,4	53,6	56,0	56,0	32,0

Ratings 60 Hz - 1800 R.P.M. - 6 & 12-wire

kVA / kW - P.F. = 0,8																	
Duty / T° C		Continuous / 40 °C				Continuous / 40 °C				Stand-by / 40 °C				Stand-by / 27 °C			
Class / T° K		H:125K				F:105K				H:150K				H:163K			
Phase		3ph.		1ph.		3ph.		1ph.		3ph.		1ph.		3ph.		1ph.	
Y		380V	416V	440V	480V	380V	416V	440V	480V	380V	416V	440V	480V	380V	416V	440V	480V
Δ		220V	240V	254V	277V	220V	240V	254V	277V	220V	240V	254V	277V	220V	240V	254V	277V
YY		190V	208V	220V	240V	190V	208V	220V	240V	190V	208V	220V	240V	190V	208V	220V	240V
ΔΔ		240V				240V				240V				240V			
TAL-A42-C	kVA	28	31	32,5	36	21,5	25,5	28	29	32,5	19,4	30	32,5	34	38	22,6	31
	kW	22,4	24,8	26,0	28,8	17,2	20,4	22,4	23,2	26,0	15,5	24,0	26,0	27,2	30,4	18,1	24,8
TAL-A42-E	kVA	36	39,5	41,4	45,5	25	32,5	35,5	37	41	23	38	41,5	43,5	48	26,4	39,5
	kW	28,8	31,6	33,1	36,4	20,0	26,0	28,4	29,6	32,8	18,4	30,4	33,2	34,8	38,4	21,1	28,8
TAL-A42-F	kVA	43	46,5	49	54	28	38,5	42	44	49	25	45	48,5	51,5	56,5	29	47
	kW	34,4	37,2	39,2	43,2	22,4	30,8	33,6	35,2	39,2	20,0	36,0	38,8	41,2	45,2	23,2	37,6
TAL-A42-G	kVA	47	52	54,5	60	30,5	43	47	49	54	27,5	50	54,5	57	63	32	52
	kW	37,6	41,6	43,6	48,0	24,4	34,4	37,6	39,2	43,2	22,0	40,0	43,6	45,6	50,4	25,6	41,6
TAL-A42-H	kVA	60	65,5	68,5	75,6	39	54	59	62	68	35	63	68,5	72	79	41	66
	kW	48,0	52,4	54,8	60,5	31,2	43,2	47,2	49,6	54,4	28,0	50,4	54,8	57,6	63,2	32,8	52,8