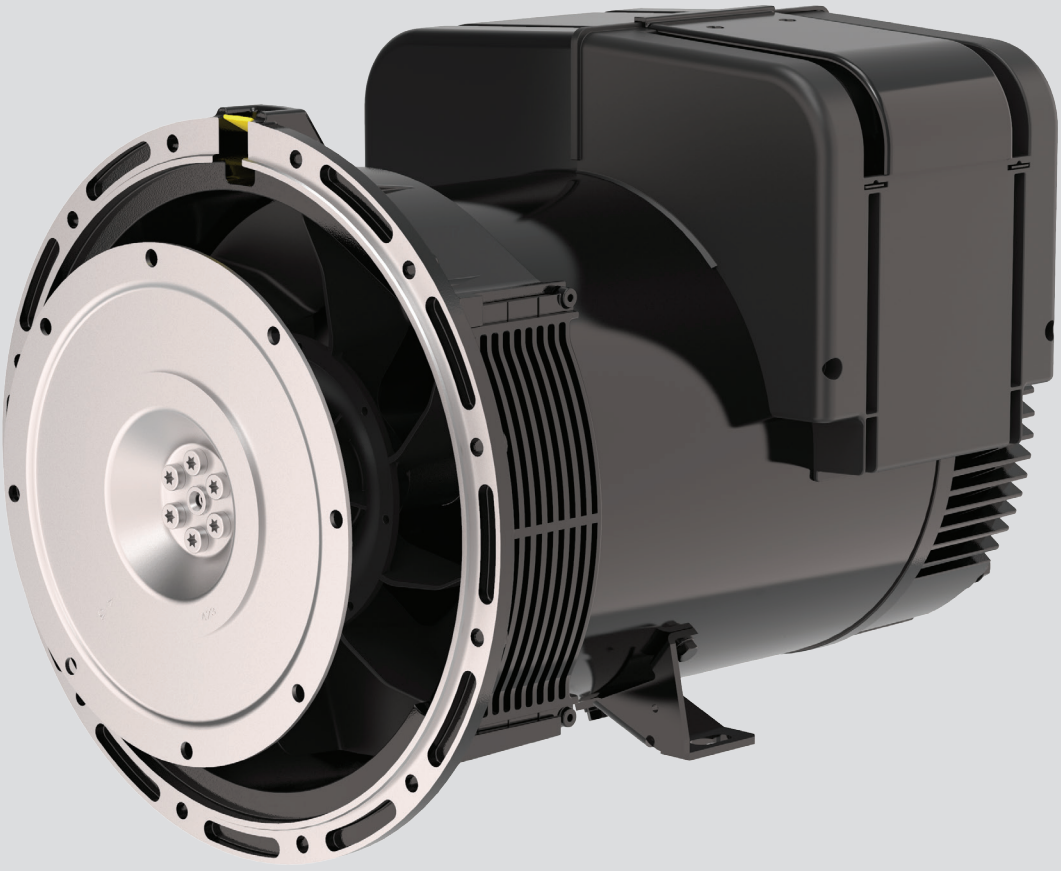


TAL 042

Low Voltage Alternator - 4 pole

Three-phase 25 to 60 kVA - 50 Hz / 31.5 to 75 kVA - 60 Hz
Dedicated single-phase 18 to 42 kVA - 50 Hz / 23 to 53 kVA - 60 Hz
Electrical and mechanical data

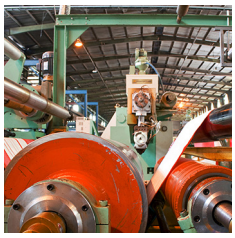
LEROY-SOMER™

Nidec
All for dreams

The best of performance

Nidec Leroy-Somer TAL 042 alternator has been designed to offer you the best power generation performances. With its meticulous design and optimized architecture, the TAL 042 strikes the perfect balance between compactness, reliability, performance and longevity.
Whatever your application, the TAL 042 will meet your needs and will adapt to all situations.





Standards

Nidec Leroy-Somer TAL 042 alternator meets all key international standards and regulations, including IEC 60034, NEMA MG 1.32-33, ISO 8528-3, CSA C22.2 n°100-14 and UL 1446 (UL 1004 on request).
Also compliant with IEC 61000-6-2, IEC 61000-6-3, IEC 61000-6-4, VDE 0875G, VDE 0875N and EN 55011, group 1 class A for European zone.
Nidec Leroy-Somer TAL 042 alternator can be integrated in EC marked generator set, and bears EC, EAC and CMIM markings.
It is designed, manufactured and marketed in an ISO 9001 and ISO 14001 quality assurance environment.

Electrical characteristics and performances

- Class H insulation
- Shunt excitation
- Low voltage winding:
  - Three-phase 50 Hz: 220V - 240V and 380V - 415V (440V)
    60 Hz: 208V - 240V and 380V - 480V
  - Single-phase 50 Hz: 115V - 230V
    60 Hz: 120V - 240V
- 4-terminal plates in 6-wire version
- Optimized performance

Excitation and regulation system

	Excitation system				Regulation options	
	AVR	**SHUNT**	**AREP+** (option)	**PMG** (option)	**UL$_{C/US}$**	**Remote voltage potentiometer**
Three-phase 6-wire	**R120**	Standard				
	R150	Option				√
	R180		Standard	Standard		√
	D350	Option	Option	Option	√	√
Three-phase 12-wire	**R120**	Standard				
	R220	Option			√	√
	R180		Standard	Standard		√
	D350	Option	Option	Option	√	√
Single-phase	**R121**	Standard				√
	R221	Option			√	√

Protection system and options

- Degree of protection: IP 23
- Complete winding protection for non-harsh environment with relative humidity ≤ 95%
- Options:
  - Three-phase 12-wire with 8-terminal plates
  - AREP+ or PMG excitation
  - ULc/us
  - Customized painting (unpainted machine as standard)
  - Space heater
  - Flying leads
  - Dedicated single-phase
  - Winding 8 optimized for three-phase 380V / 416V - 60Hz
  - Reinforced winding protection for harsh environments and relative humidity greater than 95% (system 2 - 4): derating according to the following table

	50 Hz			60 Hz
Type	380V	400V	415V	All voltages
TAL 042	0.97	1 except 0.97 for TAL 042 G & H	1 except 0.97 for TAL 042 G & H	1 except 0.97 for TAL 042 G & H

Mechanical construction

- Compact and rugged assembly to withstand engine vibrations
- Steel frame
- Aluminum flanges and shields
- Single-bearing design compatible with most diesel engines
- Greased for life bearings
- Direction of rotation: clockwise and counterclockwise without derating

Terminal box design

- Easy access to AVR and terminals

General characteristics

Insulation class	H	Excitation system 6-wire	SHUNT / AREP+ / PMG
Winding pitch	2/3 (wind.6S - 6-wire / wind.6 - 12-wire)	AVR type	R120 / R180
Number of wires	6 (12 option)	Excitation system 12-wire (option)	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	< 2 %
Air flow 50 Hz	0.10 m³/s	Total Harmonic Distortion THD (***) in linear load	< 5 %
Air flow 60 Hz	0.13 m³/s	Waveform: NEMA = TIF (***)	< 50
AREP+/PMG Short-circuit current = 2.7 In: 5 seconds (*)		Waveform: I.E.C. = FHT (***)	< 2%

(*) D350: 10 seconds (**) Steady state (***) Total harmonic distortion between phases, no-load or on-load (non-distorting)

Ratings 50 Hz - 1500 R.P.M.

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 / 125° K					F / 105° K					H / 150° K					H / 163° K				
Phase		3 ph.				1 ph.	3 ph.				1 ph.	3 ph.				1 ph.	3 ph.				1 ph.
Y		380V	**400V**	415V	440V		380V	**400V**	415V	440V		380V	**400V**	415V	440V		380V	**400V**	415V	440V	
Δ		220V	**230V**	240V		230V	220V	**230V**	240V		230V	220V	**230V**	240V		230V	220V	**230V**	240V		230V
YY (*)			**200V**		220V			**200V**		220V			**200V**		220V			**200V**		220V	
ΔΔ (*)						230V					230V					230V					230V
TAL 042 A	kVA	25	**25**	25	24.5	15	23	**23**	23	22.5	13.5	26.5	**26.5**	26.5	26	16	27.5	**27.5**	27.5	27	16.5
	kW	*20*	***20***	*20*	*19.5*	*12*	*18.5*	***18.5***	*18.5*	*18*	*11*	*21*	***21***	*21*	*21*	*13*	*22*	***22***	*22*	*21.5*	*13*
TAL 042 B	kVA	27	**27**	27	26	16	24.5	**24.5**	24.5	23.5	14.5	28.5	**28.5**	28.5	27.5	17	30	**30**	30	28.5	17.5
	kW	*21.5*	***21.5***	*21.5*	*21*	*13*	*19.5*	***19.5***	*19.5*	*19*	*11.5*	*23*	***23***	*23*	*22*	*13.5*	*24*	***24***	*24*	*23*	*14*
TAL 042 C	kVA	31	**32**	32	30	19	28	**29**	29	27.5	17.5	33	**34**	34	32	20	34	**35**	35	33	21
	kW	*25*	***25.5***	*25.5*	*24*	*15*	*22.5*	***23***	*23*	*22*	*14*	*26.5*	***27***	*27*	*25.5*	*16*	*27*	***28***	*28*	*26.5*	*17*
TAL 042 D	kVA	35	**35**	35	30.5	22	32	**32**	32	28	20	37	**37**	37	32.5	23.5	38.5	**38.5**	38.5	33.5	24
	kW	*28*	***28***	*28*	*24.5*	*17.5*	*25.5*	***25.5***	*25.5*	*22.5*	*16*	*29.5*	***29.5***	*29.5*	*26*	*19*	*31*	***31***	*31*	*27*	*19*
TAL 042 E	kVA	39.5	**40**	40	35	25	36	**36.5**	36.5	32	23	42	**42.5**	42.5	37	26.5	43.5	**45**	45	38.5	27.5
	kW	*31.5*	***32***	*32*	*28*	*20*	*29*	***29***	*29*	*25.5*	*18.5*	*33.5*	***34***	*34*	*29.5*	*21*	*35*	***36***	*36*	*31*	*22*
TAL 042 F	kVA	43	**45**	45	39	27	39	**41**	41	35.5	24.5	45.5	**47.5**	47.5	41.5	28.5	47.5	**50**	50	43	29.5
	kW	*34.5*	***36***	*36*	*31*	*21.5*	*31*	***33***	*33*	*28.5*	*19.5*	*36.5*	***38***	*38*	*33*	*23*	*38*	***40***	*40*	*34.5*	*23.5*
TAL 042 G	kVA	47.5	**50**	50	43	30	43	**45.5**	45.5	39	27.5	50	**53**	53	45.5	32	52	**55**	55	47.5	33
	kW	*38*	***40***	*40*	*34.5*	*24*	*34.5*	***36.5***	*36.5*	*31*	*22*	*40*	***42***	*42*	*36.5*	*25.5*	*42*	***44***	*44*	*38*	*26.5*
TAL 042 H	kVA	58	**60**	60	52	36	53	**55**	55	47	33	61	**64**	64	55	38	64	**66**	66	57	39.5
	kW	*46*	***48***	*48*	*42*	*29*	*42*	***44***	*44*	*37.5*	*26.5*	*49*	***51***	*51*	*44*	*30.5*	*51*	***53***	*53*	*46*	*31.5*

(*) 12-wire option

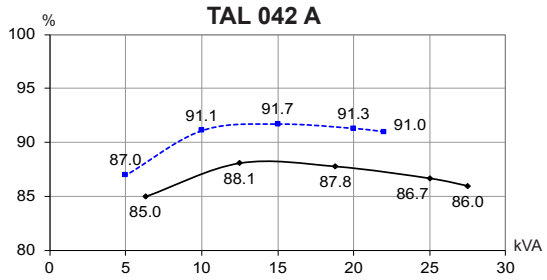
Ratings 60 Hz - 1800 R.P.M.

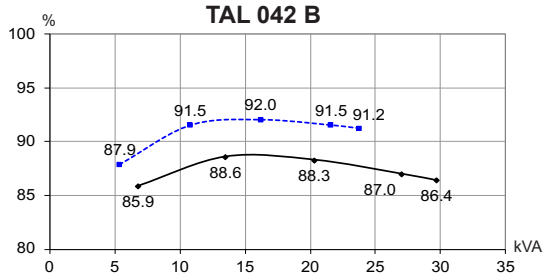
kVA / kW - P.F. = 0.8

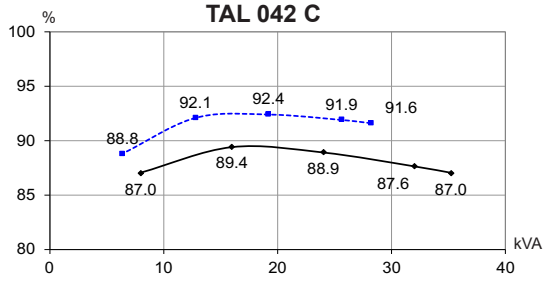
Duty / T° C		Continuous / 40 °C					Continuous / 40 °C					Stand-by / 40 °C					Stand-by / 27 °C				
Class / T° K		H / 125° K					F / 105° K					H / 150° K					H / 163° K				
Phase		3 ph.				1 ph.	3 ph.				1 ph.	3 ph.				1 ph.	3 ph.				1 ph.
Y		380V	416V	440V	**480V**		380V	416V	440V	**480V**		380V	416V	440V	**480V**		380V	416V	440V	**480V**	
Δ		220V	240V			240V	220V	240V			240V	220V	240V			240V	220V	240V			240V
YY (*)			208V	220V	**240V**			208V	220V	**240V**			208V	220V	**240V**			208V	220V	**240V**	
ΔΔ (*)						240V					240V					240V					240V
TAL 042 A	kVA	29	31.5	31.5	**31.5**	18.9	26.5	28.5	28.5	**28.5**	17	30.5	33.5	33.5	**33.5**	20	32	34.5	34.5	**34.5**	20.8
	kW	*23*	*25*	*25*	***25***	*15*	*21*	*23*	*23*	***23***	*13.5*	*24.5*	*27*	*27*	***27***	*16*	*25.5*	*27.5*	*27.5*	***27.5***	*16.5*
TAL 042 B	kVA	30	32	34	**34**	19.2	27.5	29	31	**31**	17.5	32	34	36	**36**	20.5	33	35	37.5	**37.5**	21.1
	kW	*24*	*25.5*	*27*	***27***	*15.5*	*22*	*23*	*25*	***25***	*14*	*25.5*	*27*	*29*	***29***	*16.5*	*26.5*	*28*	*30*	***30***	*17*
TAL 042 C	kVA	33.5	37	39	**40**	23	30.5	33.5	35.5	**36.5**	21	35.5	39	41.5	**42.5**	24.5	37	40.5	43	**44**	25.5
	kW	*27*	*29.5*	*31*	***32***	*18.5*	*24.5*	*27*	*28.5*	***29***	*17*	*28.5*	*31*	*33*	***34***	*19.5*	*29.5*	*32.5*	*34.5*	***35***	*20.5*
TAL 042 D	kVA	37.5	40.5	43	**44**	24	34	37	39	**40**	22	40	43	45.5	**46.5**	25.5	41.5	44.5	47.5	**48.5**	26.5
	kW	*30*	*32.5*	*34.5*	***35***	*19*	*27*	*29.5*	*31*	***32***	*17.5*	*32*	*34.5*	*36.5*	***37***	*20.5*	*33*	*35.5*	*38*	***39***	*21*
TAL 042 E	kVA	41.5	45.5	48.5	**50**	27.5	38	41.5	44	**45.5**	25	44	48	51	**53**	29	45.5	50	53.5	**55**	30.5
	kW	*33*	*36.5*	*39*	***40***	*22*	*30.5*	*33*	*35*	***36.5***	*20*	*35*	*38.5*	*41*	***42***	*23*	*36.5*	*40*	*43*	***44***	*24.5*
TAL 042 F	kVA	44	48	51	**56.5**	30	40	43.5	46.5	**51**	27.5	46.5	51	54	**60**	32	48.5	53	56	**62**	33
	kW	*35*	*38.5*	*41*	***45***	*24*	*32*	*35*	*37*	***41***	*22*	*37*	*41*	*43*	***48***	*25.5*	*39*	*42*	*45*	***50***	*26.5*
TAL 042 G	kVA	49	53.5	56.5	**62.5**	34	44.5	48.5	51	**57**	31	52	57	60	**66.5**	36	54	59	62	**69**	37.5
	kW	*39*	*43*	*45*	***50***	*27*	*35.5*	*39*	*41*	***46***	*25*	*42*	*46*	*48*	***53***	*29*	*43*	*47*	*50*	***55***	*30*
TAL 042 H	kVA	57	65	66.5	**75**	39	52	59	61	**68**	35.5	60	69	70	**80**	41.5	62.5	72	73	**82.5**	43
	kW	*46*	*52*	*53*	***60***	*31*	*42*	*47*	*49*	***54***	*28.5*	*48*	*55*	*56*	***64***	*33*	*50*	*58*	*58*	***66***	*34.5*

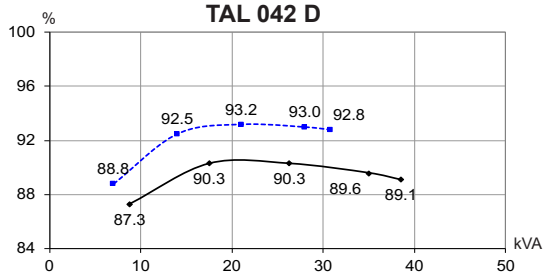
(*) 12-wire option

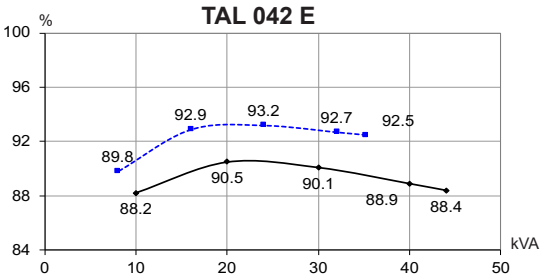
Efficiencies 400 V - 50 Hz (— P.F.: 0.8) (--- P.F.: 1)

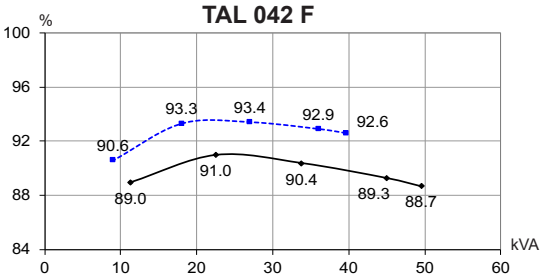


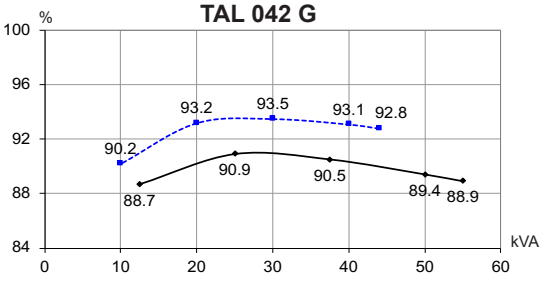


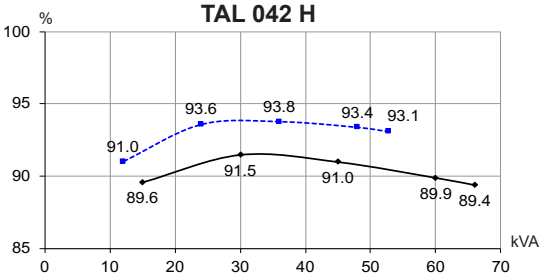












Reactances (%). Time constants (ms) - Class H / 400 V

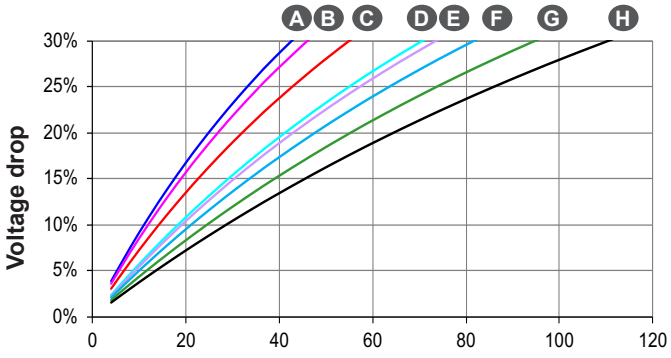
		A	B	C	D	E	F	G	H
Kcc	Short-circuit ratio	0.49	0.46	0.44	0.49	0.42	0.4	0.43	0.4
Xd	Direct-axis synchronous reactance unsaturated	257	267	279	246	281	294	283	303
Xq	Quadrature-axis synchronous reactance unsaturated	131	136	142	125	143	150	144	154
T'do	No-load transient time constant	786	813	861	944	944	980	998	1031
X'd	Direct-axis transient reactance saturated	16.3	16.4	16.2	13	14.8	15	14.1	14.7
T'd	Short-circuit transient time constant	50	50	50	50	50	50	50	50
X"d	Direct-axis subtransient reactance saturated	8.1	8.2	8.1	6.5	7.4	7.5	7	7.3
T"d	Subtransient time constant	5	5	5	5	5	5	5	5
X"q	Quadrature-axis subtransient reactance saturated	11.5	11.6	11.5	9.2	10.6	10.7	10.1	10.5
Xo	Zero sequence reactance	0.68	0.68	0.67	0.54	0.62	0.62	0.59	0.61
X2	Negative sequence reactance saturated	9.88	9.91	9.82	7.89	9.02	9.12	8.61	8.93
Ta	Armature time constant	8	8	8	8	8	8	8	8

Other class H / 400 V data

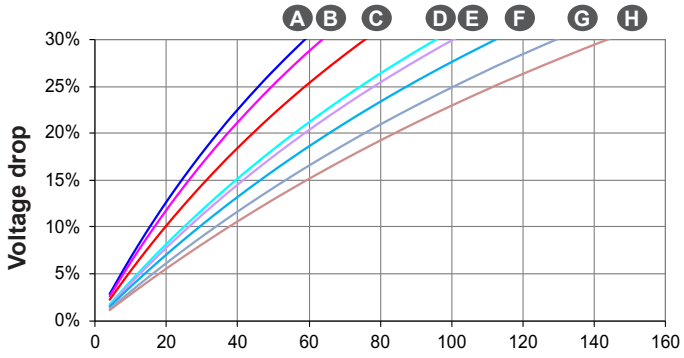
io (A)	No-load excitation current SHUNT and AREP+**	0.63	0.60	0.59	0.56	0.56	0.54	0.58	0.48 / 0.74
ic (A)	On-load excitation current SHUNT and AREP+**	2.14	2.13	2.21	1.92	2.19	2.23	2.38	2.09 / 3.21
uc (V)	On-load excitation voltage SHUNT and AREP+**	32.2	32	32.8	28.5	32.1	32.3	33.9	33.5 / 21.4
ms	Response time (ΔU = 20% transient)	500	500	500	500	500	500	500	500
kVA	Start (ΔU = 20% cont. or ΔU = 30% trans.) SHUNT*	37	40	48	66	66	73	86	100
kVA	Start (ΔU = 20% cont. or ΔU = 30% trans.) AREP+*	58	63	75	103	103	114	135	143
%	Transient ΔU (on-load 4/4) SHUNT - P.F.: 0.8 $_{LAG}$	20.1	20.1	20	17.5	19	19.1	18.4	18.9
%	Transient ΔU (on-load 4/4) AREP+ - P.F.: 0.8 $_{LAG}$	15.4	15.5	15.4	13.6	14.6	14.7	14.3	15.2
W	No-load losses	739	733	785	888	888	908	1063	1152
W	Heat dissipation	3067	3209	3593	3248	3955	4307	4694	5363

* P.F. = 0.6 - ** H: SHUNT / AREP+

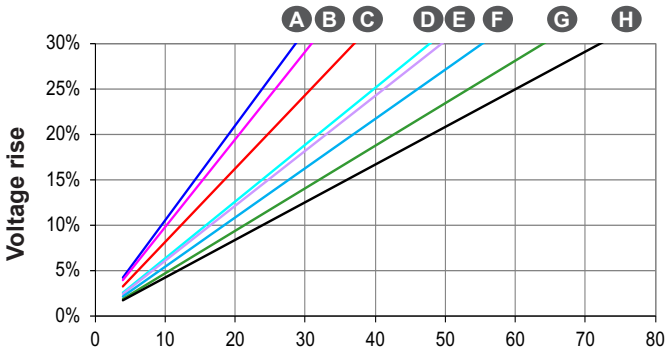
Transient voltage variation 400V - 50 Hz



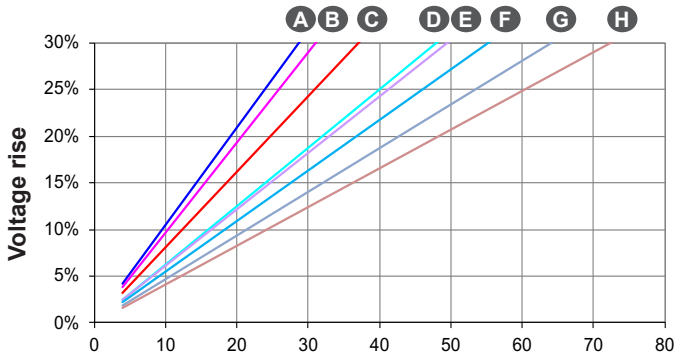
Phase loading (SHUNT) - kVA at P.F. = 0.8



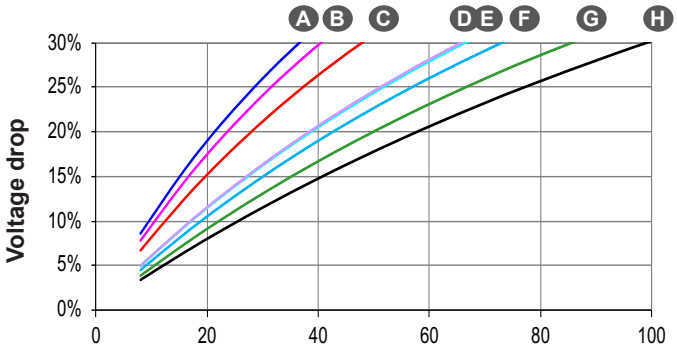
Phase loading (AREP+) - kVA at P.F. = 0.8



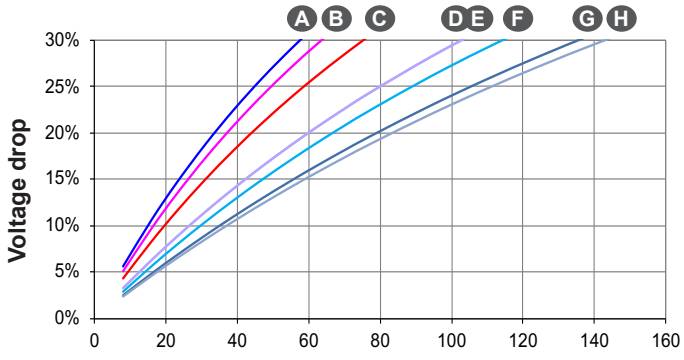
Load shedding (SHUNT) - kVA at P.F. = 0.8



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



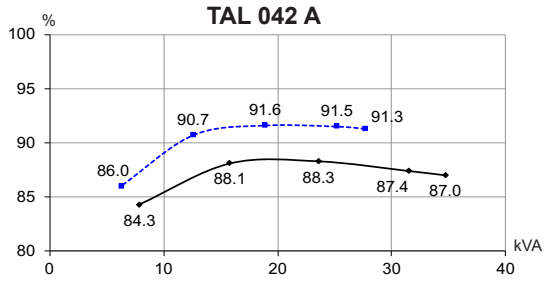
Motor starting (SHUNT)
Locked rotor kVA at P.F. = 0.6

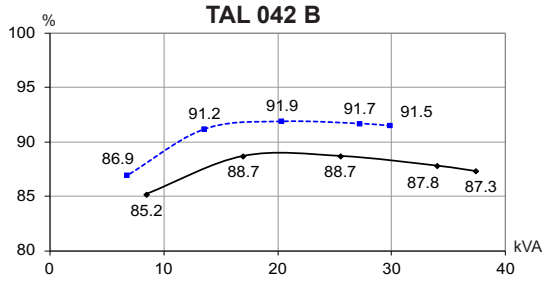


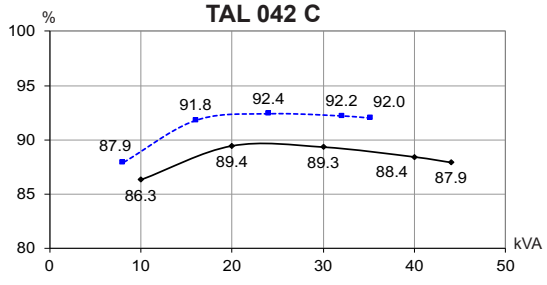
Motor starting (AREP+)
Locked rotor kVA at P.F. = 0.6

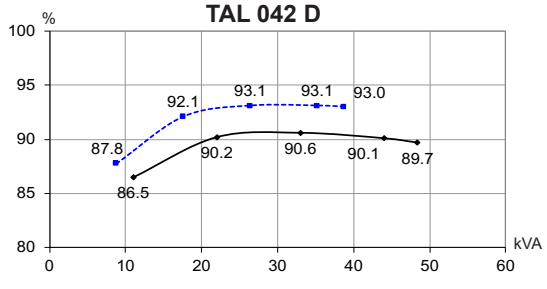
- For a starting P.F. other than 0.6, the starting kVA must be multiplied by K = Sine P.F. / 0.8
- For voltages other than 400V (Y), 230V (Δ) at 50 Hz, then kVA must be multiplied by $(400/U)^2$ or $(230/U)^2$.
- Transient performance of the PMG option, consult us.

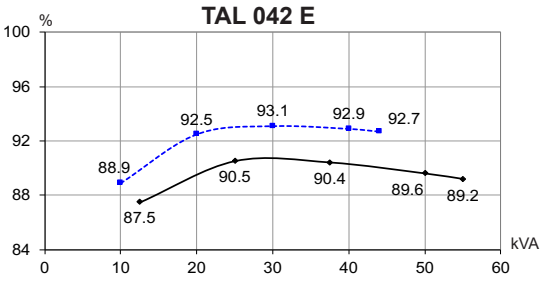
Efficiencies 480 V - 60 Hz (— P.F.: 0.8) (--- P.F.: 1)

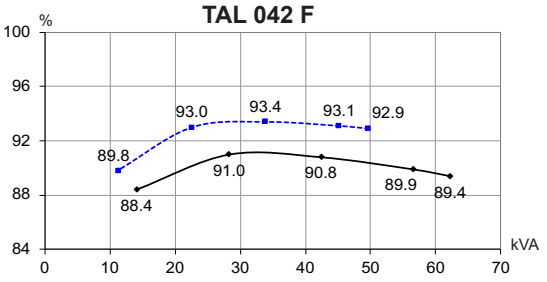


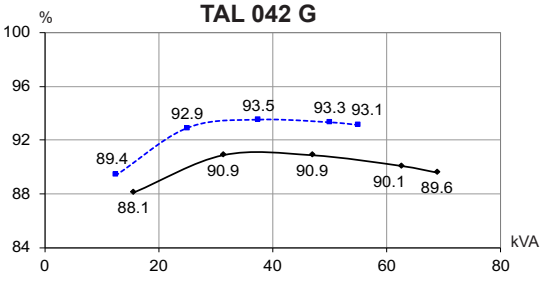


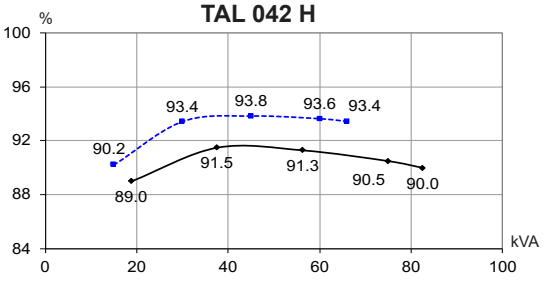












Reactances (%). Time constants (ms) - Class H / 480 V

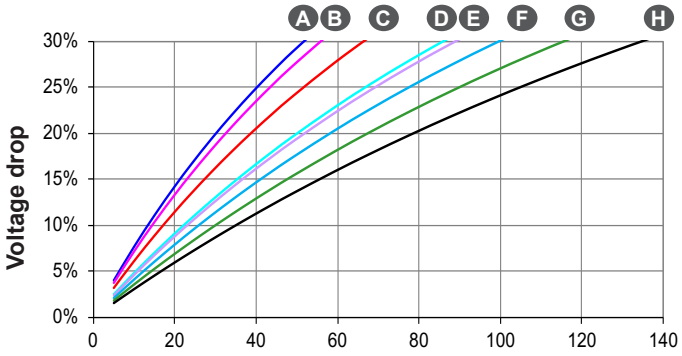
		A	B	C	D	E	F	G	H
Kcc	Short-circuit ratio	0.47	0.44	0.42	0.46	0.41	0.38	0.41	0.38
Xd	Direct-axis synchronous reactance unsaturated	270	280	292	257	292	308	295	316
Xq	Quadrature-axis synchronous reactance unsaturated	138	143	148	131	149	157	150	161
T'do	No-load transient time constant	786	813	861	944	944	980	998	1031
X'd	Direct-axis transient reactance saturated	17.2	17.2	16.9	13.6	15.5	15.7	14.7	15.3
T'd	Short-circuit transient time constant	50	50	50	50	50	50	50	50
X"d	Direct-axis subtransient reactance saturated	8.6	8.6	8.4	6.8	7.7	7.8	7.3	7.6
T"d	Subtransient time constant	5	5	5	5	5	5	5	5
X"q	Quadrature-axis subtransient reactance saturated	12.1	12.1	12	9.7	11	11.2	10.5	10.9
Xo	Zero sequence reactance	0.71	0.71	0.7	0.56	0.64	0.65	0.61	0.63
X2	Negative sequence reactance saturated	10.37	10.4	10.24	8.27	9.39	9.55	8.97	9.3
Ta	Armature time constant	8	8	8	8	8	8	8	8

Other class H / 480 V data

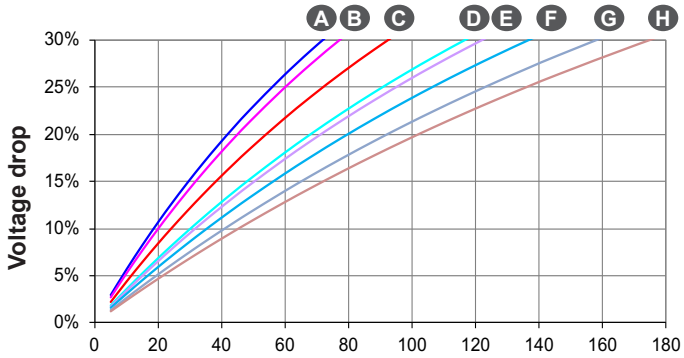
io (A)	No-load excitation current SHUNT and AREP+**	0.63	0.60	0.59	0.56	0.56	0.54	0.58	0.48 / 0.74
ic (A)	On-load excitation current SHUNT and AREP+**	2.16	2.15	2.21	1.92	2.17	2.21	2.32	2.04 / 3.13
uc (V)	On-load excitation voltage SHUNT and AREP+**	32.8	32.6	33.3	29	32.4	32.7	34.1	33.6 / 21.5
ms	Response time (ΔU = 20% transient)	500	500	500	500	500	500	500	500
kVA	Start (ΔU = 20% cont. or ΔU = 30% trans.) SHUNT*	45	48	58	79	79	88	104	119
kVA	Start (ΔU = 20% cont. or ΔU = 30% trans.) AREP+*	70	75	90	124	124	137	161	171
%	Transient ΔU (on-load 4/4) SHUNT - P.F.: 0.8 $_{LAG}$	20.7	20.7	20.5	18	19.4	19.6	18.9	19.3
%	Transient ΔU (on-load 4/4) AREP+ - P.F.: 0.8 $_{LAG}$	15.9	15.9	15.7	14	15	15.1	14.6	15.6
W	No-load losses	1051	1047	1121	1270	1270	1300	1513	1642
W	Heat dissipation	3603	3764	4184	3867	4620	5061	5489	6275

* P.F. = 0.6 - ** H: SHUNT / AREP+

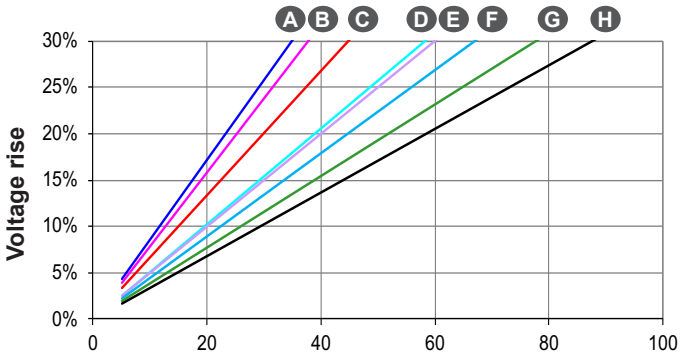
Transient voltage variation 480V - 60 Hz



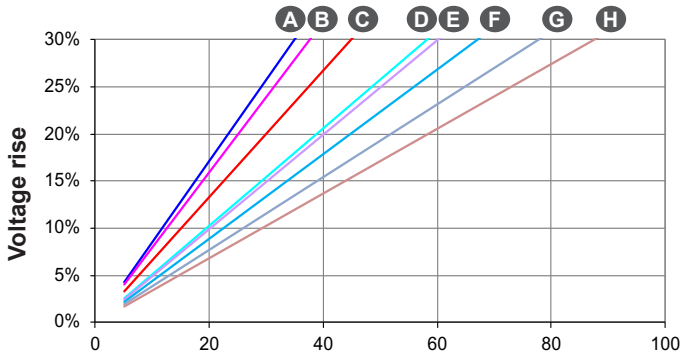
Phase loading (SHUNT) - kVA at P.F. = 0.8



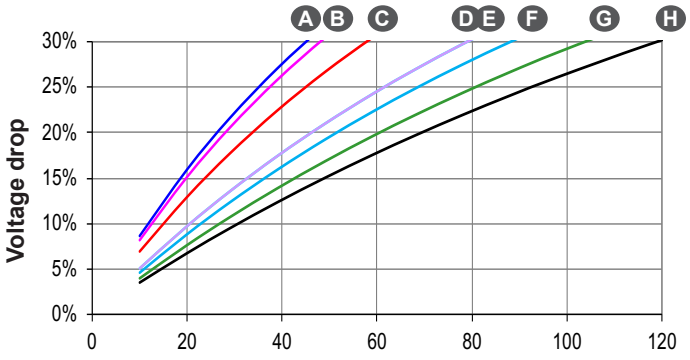
Phase loading (AREP+) - kVA at P.F. = 0.8



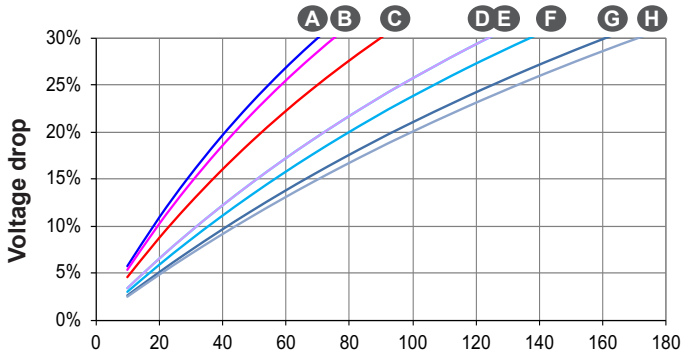
Load shedding (SHUNT) - kVA at P.F. = 0.8



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



Motor starting (SHUNT)
Locked rotor kVA at P.F. = 0.6



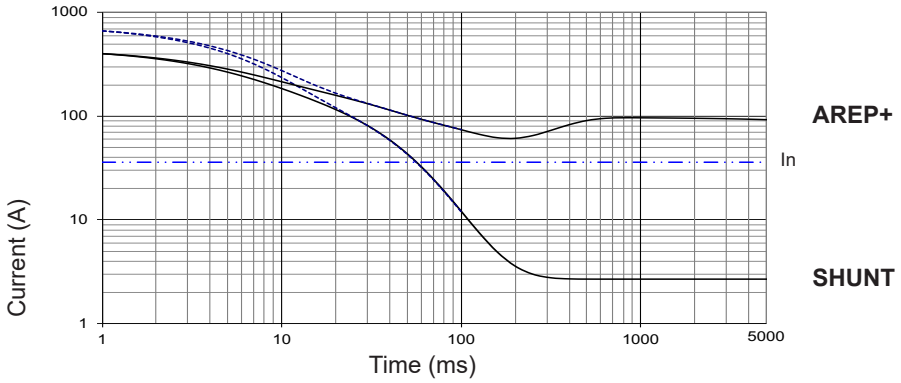
Motor starting (AREP+)
Locked rotor kVA at P.F. = 0.6

- For a starting P.F. other than 0.6, the starting kVA must be multiplied by K = Sine P.F. / 0.8
- 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 $(240/U)^2$.
- Transient performance of the PMG option, consult us.

3-phase short-circuit curves at no load and rated speed (star connection Y)

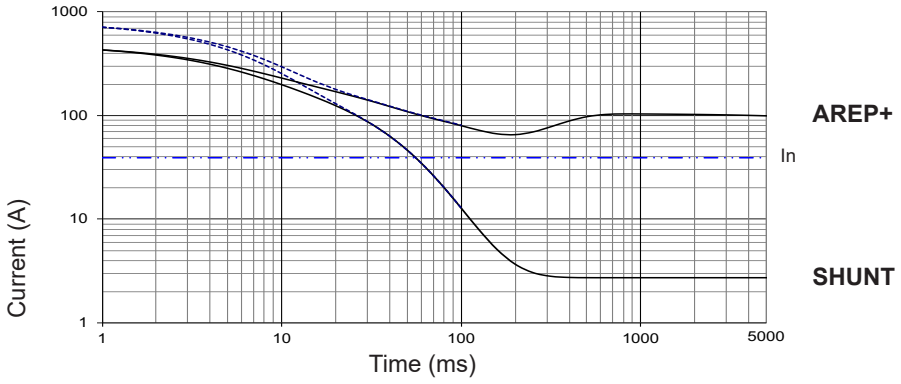
TAL 042 A

Symmetrical ——
Asymmetrical - - -



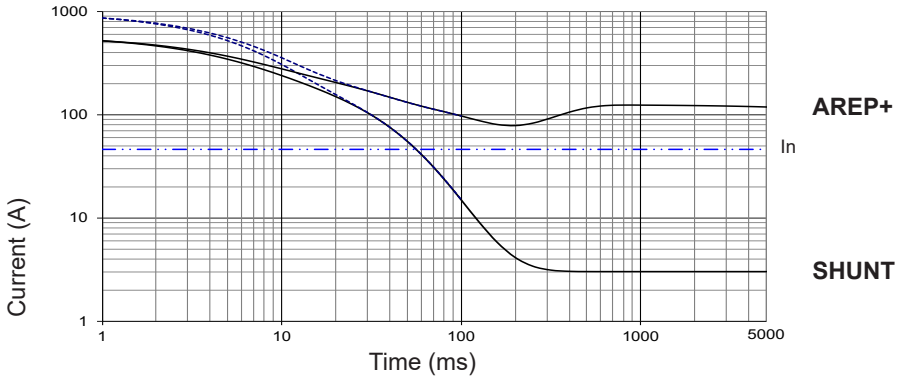
TAL 042 B

Symmetrical ——
Asymmetrical - - -



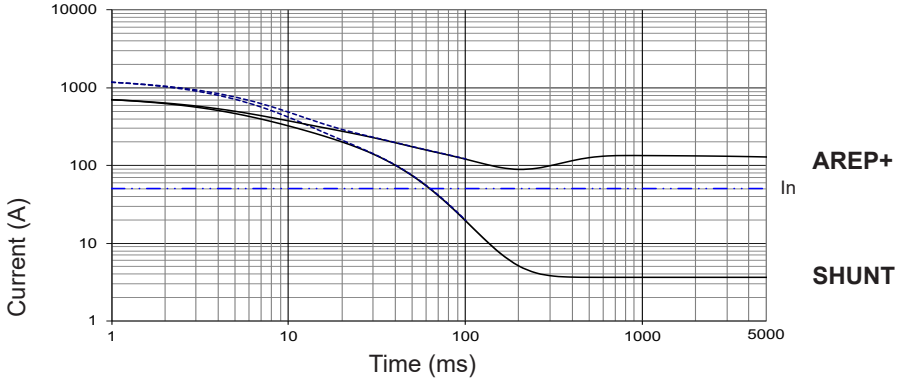
TAL 042 C

Symmetrical ——
Asymmetrical - - -



TAL 042 D

Symmetrical ——
Asymmetrical - - -

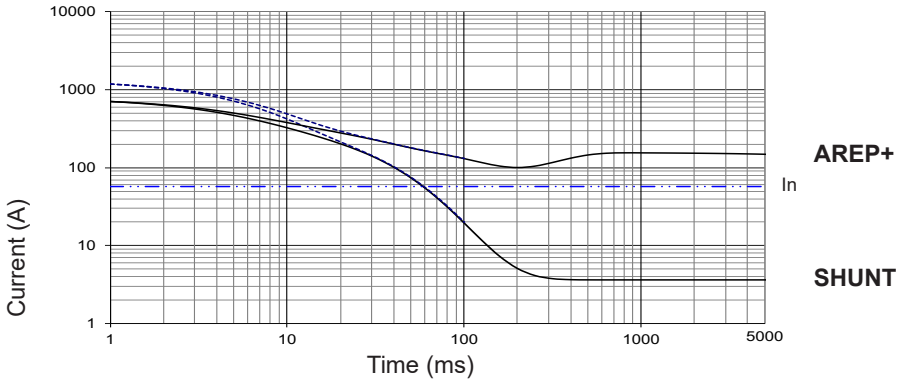


Influence due to connection
For (Δ) connection, use the following multiplication factor:
- Current value x 1.732.

3-phase short-circuit curves at no load and rated speed (star connection Y)

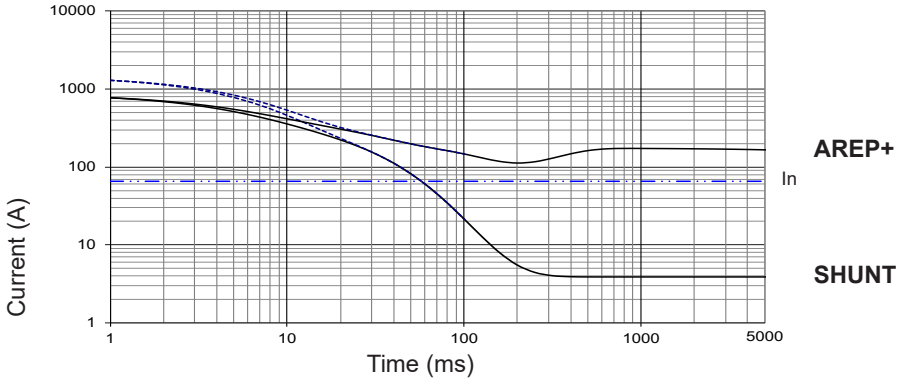
TAL 042 E

Symmetrical ——
Asymmetrical - - -



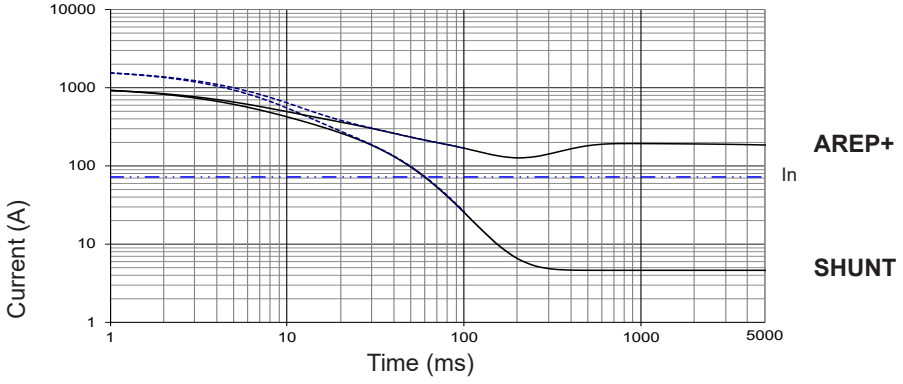
TAL 042 F

Symmetrical ——
Asymmetrical - - -



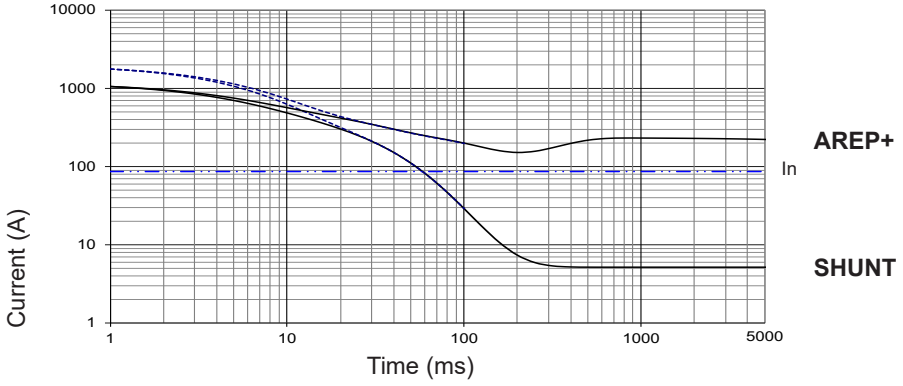
TAL 042 G

Symmetrical ——
Asymmetrical - - -



TAL 042 H

Symmetrical ——
Asymmetrical - - -



Influence due to short-circuit
Curves are based on a three-phase short-circuit.
For other types of short-circuit,
use the following multiplication factors.

	3 - phase	2 - phase L / L	1 - phase L / N
Instantaneous (max.)	1	0.87	1.3
Continuous	1	1.5	2.2
Maximum duration (AREP+/PMG)	1	1.5	

General characteristics

Insulation class	H	Excitation system	SHUNT
Winding pitch	2/3 (wind. M 50 Hz, M1 60 Hz)	AVR type	R121
Number of wires	4	Voltage regulation (*)	± 1 %
Protection	IP 23	Total Harmonic Distortion THD (**) in no-load	< 3.5 %
Altitude	≤ 1000 m	Total Harmonic Distortion THD (**) in linear load	< 5 %
Overspeed	2250 R.P.M.	Waveform: NEMA = TIF (**)	< 100
Air flow	0.10 m³/s (50 Hz) / 0.13 m³/s (60 Hz)	Waveform: I.E.C. = FHT (**)	< 2 %

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

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

kVA / kW - P.F. = 1(*)

Duty / T° C	Continuous / 40 °C			Stand-by / 40 °C	Stand-by / 27 °C	
Class / T° K	H / 125° K		F / 105° K	H / 150° 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 042 A	**18**	**88.1**	16.5	19	20	87.4
TAL 042 B	**20.5**	**88.1**	18.5	21.5	22.5	87.4
TAL 042 C	**22.5**	**89**	20.5	24	25	88.4
TAL 042 D	**25**	**90.6**	23	26.5	27.5	90.2
TAL 042 E	**28**	**90.1**	25.5	29.5	31	89.6
TAL 042 F	**31.5**	**90.3**	28.5	33.5	34.5	89.8
TAL 042 G	**35**	**90.4**	32	37	38.5	89.9
TAL 042 H	**42**	**90.5**	38	44.5	46	90

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

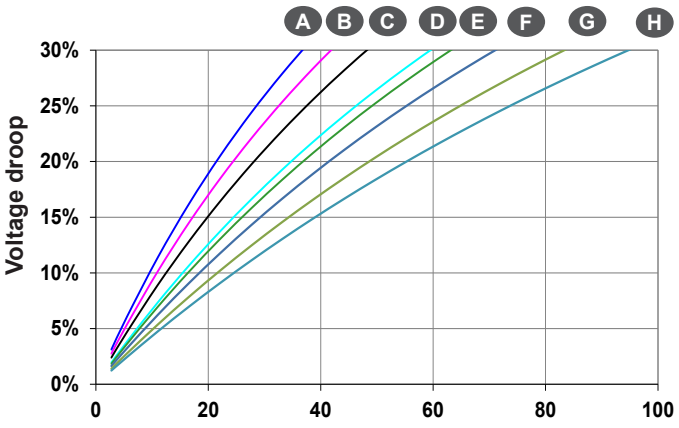
Ratings / Efficiencies 60 Hz - 1800 R.P.M. - Winding M1

kVA / kW - P.F. = 1(*)

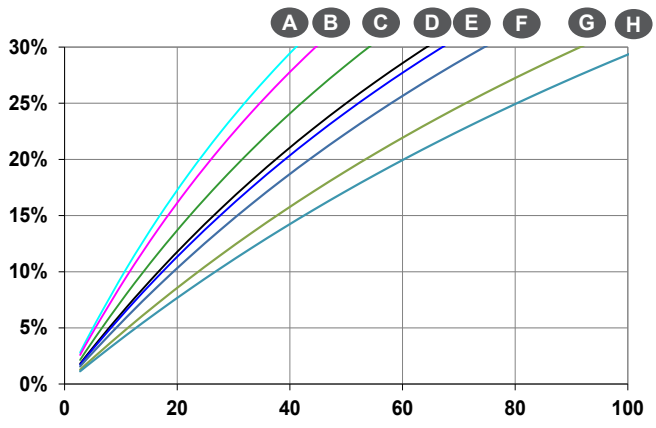
Duty / T° C	Continuous / 40 °C			Stand-by / 40 °C	Stand-by / 27 °C	
Class / T° K	H / 125° K		F / 105° K	H / 150° K	H / 163° K	
Serie (SE)	**240 V**	**η %**	240 V	240 V	240V	η %
Parallel (PA)	**120 V**	**η %**	120 V	120 V	120 V	η %
TAL 042 A	**23**	**88.3**	21	24.5	25.5	87.7
TAL 042 B	**26**	**88.3**	23.5	27.5	28.5	87.6
TAL 042 C	**29**	**89**	26	30.5	32	88.5
TAL 042 D	**31.5**	**90.4**	28.5	33.5	34.5	90
TAL 042 E	**36**	**89.8**	33	38	39.5	89.2
TAL 042 F	**40**	**90**	36.5	42.5	44	89.5
TAL 042 G	**47**	**90**	43	50	51	89.5
TAL 042 H	**53**	**90.5**	48	56	58	90

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

Starting motor 230V - 50Hz

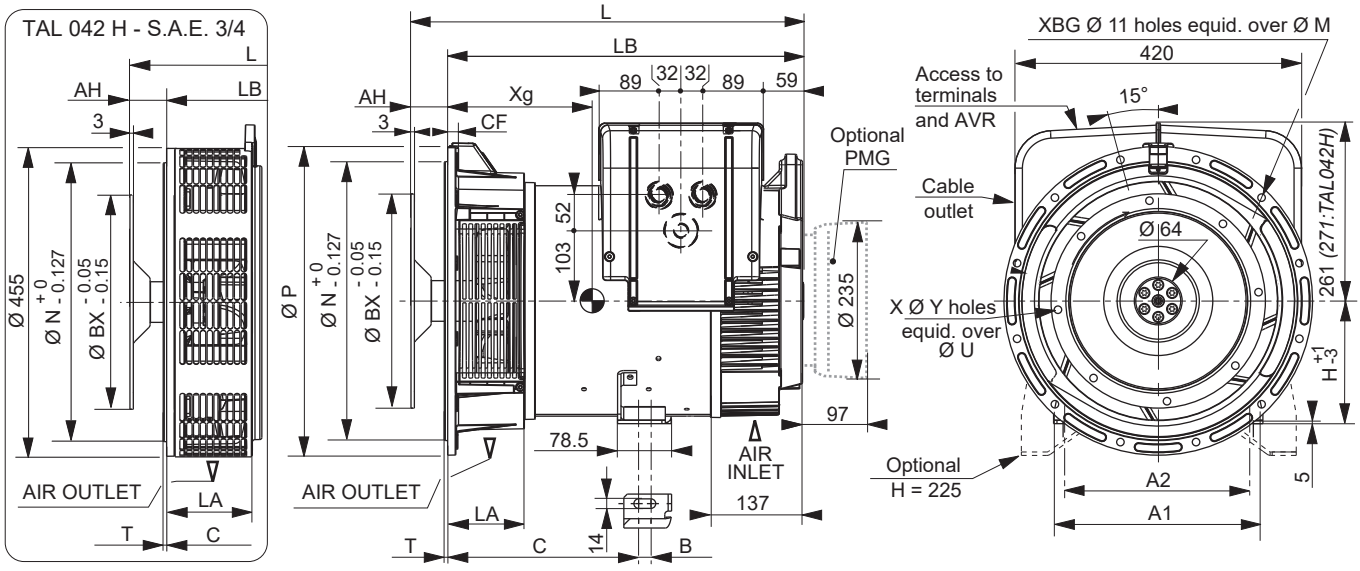


Starting motor 240V - 60Hz



Locked rotor kVA at PF : 0.9

Single-bearing dimensions



Dimensions (mm) and weight					H = 180 (Standard)				*H = 225 (Option)*			
Type	L without PMG maxi*	LB	Xg	Weight (kg)	C	B	A1	A2	*C*	*B*	*A1*	*A2*
TAL 042 A	565	503	237	117	260	18	307	279	*299*	*23*	*400*	*356*
TAL 042 B	565	503	242	122	260	18	307	279	*299*	*23*	*400*	*356*
TAL 042 C	565	503	252	133	260	18	307	279	*299*	*23*	*400*	*356*
TAL 042 D	610	548	275	165	260	18	307	279	*312.5*	*23*	*400*	*356*
TAL 042 E	610	548	275	165	260	18	307	279	*312.5*	*23*	*400*	*356*
TAL 042 F	650	588	287	181	260	18	307	279	*312.5*	*23*	*400*	*356*
TAL 042 G	650	588	295	186	260	18	307	279	*312.5*	*23*	*400*	*356*
TAL 042 H**	680	618	310	187	260	18	307	279	*312.5*	*23*	*400*	*356*
TAL 042 H***	703	641	300	195	283	18	307	279	*335.5*	*23*	*400*	*356*

Coupling			
Flange	**2**	**3**	**4**
Flex plate			
11 ½	x	x	-
10	x	x	x
8	-	x	x
7 ½	-	x	x

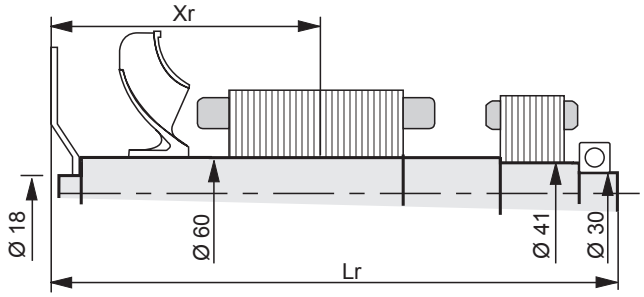
* L maxi = LB + AH maxi ** S.A.E. 3 *** S.A.E. 4

Flange (mm)							
S.A.E.	P	N	M	XBG	T	LA	CF
4	406/455*	361.95	381	12	5*/6	122/128.3*	15/16*
3	452	409.58	428.62	12	5	105.3*/112.5	12
2	490	447.675	466.725	12	6	111	12

* Specific dimension TAL 042 H

Flex plate (mm)					
S.A.E.	BX	U	X	Y	AH
11 ½	352.42	333.38	8	11	39.6
10	314.32	295.28	8	11	53.8
8	263.52	244.48	6	11	62
7 ½	241.3	222.25	8	9	30.2

Torsional analysis 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. 7 ½				S.A.E. 8				S.A.E. 10				S.A.E. 11 ½			
Type	Xr	Lr	M	J	Xr	Lr	M	J	Xr	Lr	M	J	Xr	Lr	M	J
TAL 042 A	279	526.2	44.1	0.216	277	558	44.4	0.220	274	549.8	44.9	0.211	272	535.6	45.4	0.244
TAL 042 B	282	526.2	46.1	0.229	280	558	46.4	0.233	277	549.8	46.9	0.224	274	535.6	47.4	0.257
TAL 042 C	287	526.2	50.1	0.255	286	558	50.5	0.258	283	549.8	50.9	0.249	281	535.6	51.4	0.282
TAL 042 D	310	571.2	60.2	0.312	308	603	60.6	0.316	306	594.8	61	0.307	304	580.6	61.5	0.340
TAL 042 E	310	571.2	60.2	0.312	308	603	60.6	0.316	306	594.8	61	0.307	304	580.6	61.5	0.340
TAL 042 F	325	611.2	66.2	0.344	323	643	66.5	0.348	321	634.8	66.9	0.339	319	620.6	67.4	0.372
TAL 042 G	330	611.2	69.2	0.364	328	643	69.5	0.367	326	634.8	69.9	0.358	324	620.6	70.4	0.391
TAL 042 H	344	641.2	77.5	0.414	342	673	77.8	0.418	340	664.8	78.2	0.430	338	650.6	78.8	0.442

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.

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