

**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**<sup>™</sup>

***Nidec***  
All for dreams

# TAL 042 - Three-phase & Single-phase

## Adapted to needs

The TAL alternator range is designed to meet the needs of general applications such as prime power and stand-by.

## Compliant with international standards

The TAL range complies with international standards and regulations: IEC 60034 and derivative.

The range is designed, manufactured and marketed in an ISO 9001 and 14001 environment.

## Electrical design

- Class H insulation
- Shunt excitation
- Low voltage winding:
  - Three-phase 50 Hz: 380V - 400V - 415V - 440V / 220V - 230V - 240V
  - 60 Hz: 380V - 416V - 440V - 480V / 220V - 208V - 240V
  - Single-phase 50 Hz: 115V - 230V
  - 60 Hz: 120V - 240V
- 4-terminal plates in 6-wire version
- Optimized performance

## Robust design

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

## Excitation and regulation system suited to the application

	Excitation system				Regulation options	
	AVR	SHUNT	AREP (option)	PMG (option)	ULC/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	√	√
Single-phase	R121	Standard				√
	R221	Option			√	√

√: Possible option

## Compact terminal box

- Easy access to AVR and terminals

## Environment and protection

- IP Code IP 23
- Standard winding protection for non-harsh environment with relative humidity  $\leq 95\%$

## Available options

- Three-phase 12-wire with 8-terminal plates
- AREP or PMG excitation
- ULC/us
- Customized painting (machine not painted as standard)
- Space heaters
- Flying leads
- Dedicated single-phase
- Winding 8 optimized for three-phase 380V / 416V - 60Hz
- Winding protection for harsh environments and relative humidity greater than 95% (system 2 - 4): derating according to the following table

Type	50 Hz			60 Hz
	380 V	400 V	415 V	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



# TAL 042 - Three-phase 25 to 60 kVA - 50 Hz / 31.5 to 75 kVA - 60 Hz

## 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-wire (12-wire option)	Excitation system 12-wire (option)	SHUNT	AREP / PMG
Protection	IP 23	AVR type	R120	R180
Altitude	≤ 1000 m	Voltage regulation (*)		± 1 %
Overspeed	2250 R.P.M.	Total Harmonic Distortion THD (**) in no-load		< 2 %
Air flow 50 Hz (m³/s)	0.10	Total Harmonic Distortion THD (**) in linear load		< 5 %
Air flow 60 Hz (m³/s)	0.13	Waveform: NEMA = TIF (**)		< 50
AREP Short-circuit current = 2.7 In: 5 second		Waveform: I.E.C. = FHT (**)		< 2%

(\*) 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.		
<b>Y</b>		380V	400V	415V	440V		380V	400V	415V	440V		380V	400V	415V	440V		380V	400V	415V	440V	
<b>Δ</b>		220V	230V	240V		230V	220V	230V	240V		230V	220V	230V	240V		230V	220V	230V	240V		230V
<b>YY (*)</b>		220V					220V					220V					220V				
<b>ΔΔ (*)</b>						230V					230V					230V					230V
<b>TAL 042 A</b>	kVA	25	<b>25</b>	25	24.5	15	23	<b>23</b>	23	22.5	13.5	26.5	<b>26.5</b>	26.5	26	16	27.5	<b>27.5</b>	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
<b>TAL 042 B</b>	kVA	27	<b>27</b>	27	26	16	24.5	<b>24.5</b>	24.5	23.5	14.5	28.5	<b>28.5</b>	28.5	27.5	17	30	<b>30</b>	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
<b>TAL 042 C</b>	kVA	31	<b>32</b>	32	30	19	28	<b>29</b>	29	27.5	17.5	33	<b>34</b>	34	32	20	34	<b>35</b>	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
<b>TAL 042 D</b>	kVA	35	<b>35</b>	35	30.5	22	32	<b>32</b>	32	28	20	37	<b>37</b>	37	32.5	23.5	38.5	<b>38.5</b>	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
<b>TAL 042 E</b>	kVA	39.5	<b>40</b>	40	35	25	36	<b>36.5</b>	36.5	32	23	42	<b>42.5</b>	42.5	37	26.5	43.5	<b>45</b>	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
<b>TAL 042 F</b>	kVA	43	<b>45</b>	45	39	27	39	<b>41</b>	41	35.5	24.5	45.5	<b>47.5</b>	47.5	41.5	28.5	47.5	<b>50</b>	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
<b>TAL 042 G</b>	kVA	47.5	<b>50</b>	50	43	30	43	<b>45.5</b>	45.5	39	27.5	50	<b>53</b>	53	45.5	32	52	<b>55</b>	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
<b>TAL 042 H</b>	kVA	58	<b>60</b>	60	52	36	53	<b>55</b>	55	47	33	61	<b>64</b>	64	55	38	64	<b>66</b>	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

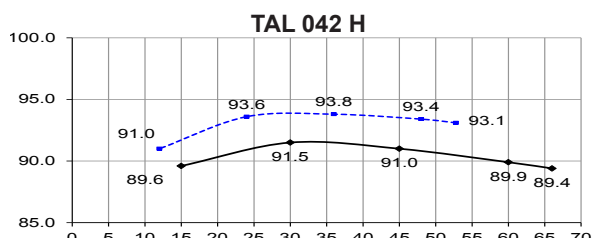
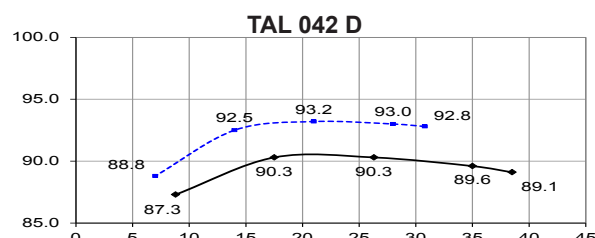
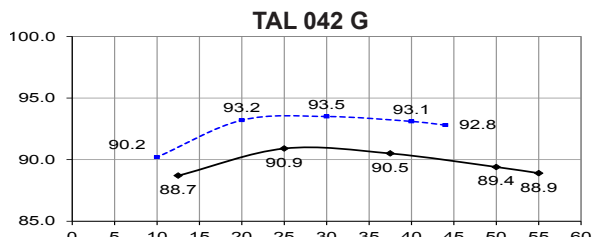
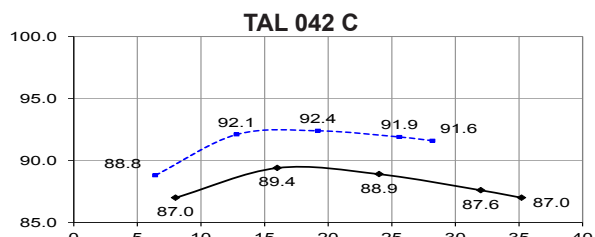
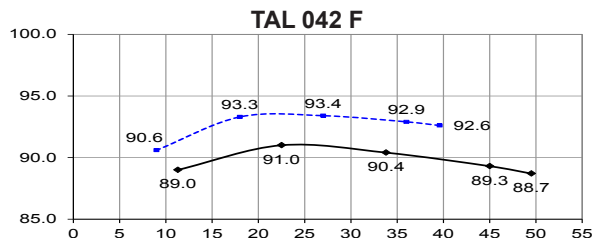
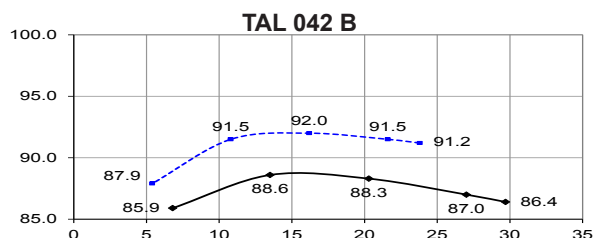
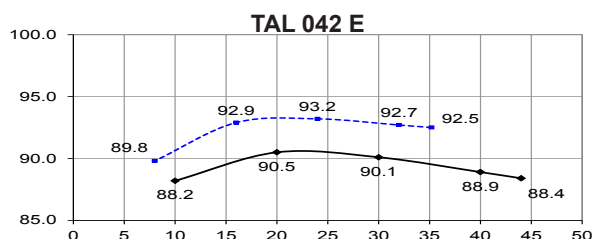
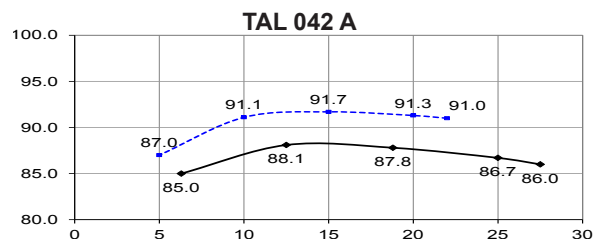
(\*) 12-wire option

## 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.		
<b>Y</b>		380V	416V	440V	480V		380V	416V	440V	480V		380V	416V	440V	480V		380V	416V	440V	480V	
<b>Δ</b>		220V	240V		240V		220V	240V		240V		220V	240V		240V		220V	240V		240V	
<b>YY (*)</b>		208V				240V	208V				240V	208V				240V	208V				240V
<b>ΔΔ (*)</b>						240V					240V					240V					240V
<b>TAL 042 A</b>	kVA	29	31.5	31.5	<b>31.5</b>	18.9	26.5	28.5	28.5	<b>28.5</b>	17	30.5	33.5	33.5	<b>33.5</b>	20	32	34.5	34.5	<b>34.5</b>	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
<b>TAL 042 B</b>	kVA	30	32	34	<b>34</b>	19.2	27.5	29	31	<b>31</b>	17.5	32	34	36	<b>36</b>	20.5	33	35	37.5	<b>37.5</b>	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
<b>TAL 042 C</b>	kVA	33.5	37	39	<b>40</b>	23	30.5	33.5	35.5	<b>36.5</b>	21	35.5	39	41.5	<b>42.5</b>	24.5	37	40.5	43	<b>44</b>	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
<b>TAL 042 D</b>	kVA	37.5	40.5	43	<b>44</b>	24	34	37	39	<b>40</b>	22	40	43	45.5	<b>46.5</b>	25.5	41.5	44.5	47.5	<b>48.5</b>	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
<b>TAL 042 E</b>	kVA	41.5	45.5	48.5	<b>50</b>	27.5	38	41.5	44	<b>45.5</b>	25	44	48	51	<b>53</b>	29	45.5	50	53.5	<b>55</b>	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
<b>TAL 042 F</b>	kVA	44	48	51	<b>56.5</b>	30	40	43.5	46.5	<b>51</b>	27.5	46.5	51	54	<b>60</b>	32	48.5	53	56	<b>62</b>	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
<b>TAL 042 G</b>	kVA	49	53.5	56.5	<b>62.5</b>	34	44.5	48.5	51	<b>57</b>	31	52	57	60	<b>66.5</b>	36	54	59	62	<b>69</b>	37.5
	kW	39	43	45	50	27	35.5	39	41	46	25	42	46	48	53	29	43	47	50	55	30
<b>TAL 042 H</b>	kVA	57	65	66.5	<b>75</b>	39	52	59	61	<b>68</b>	35.5	60	69	70	<b>80</b>	41.5	62.5	72	73	<b>82.5</b>	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

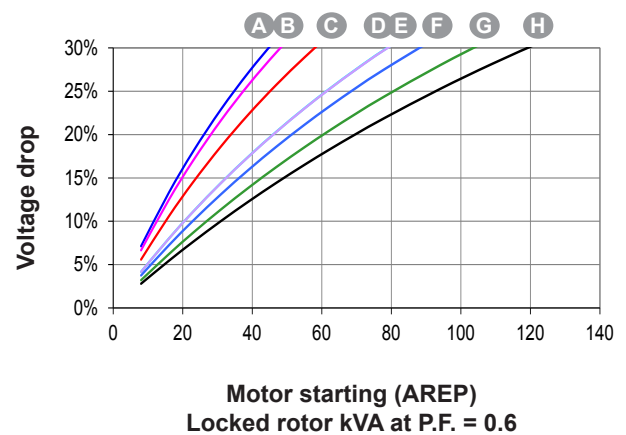
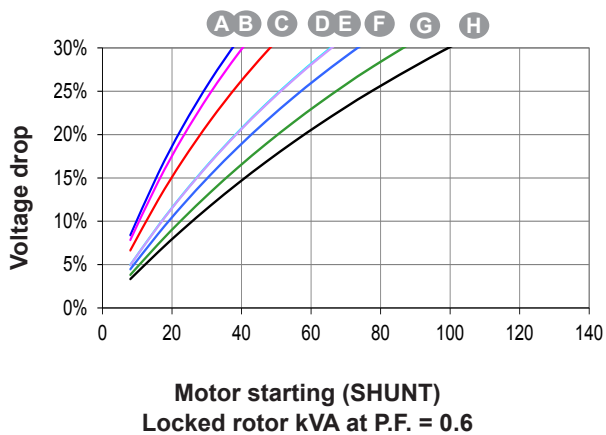
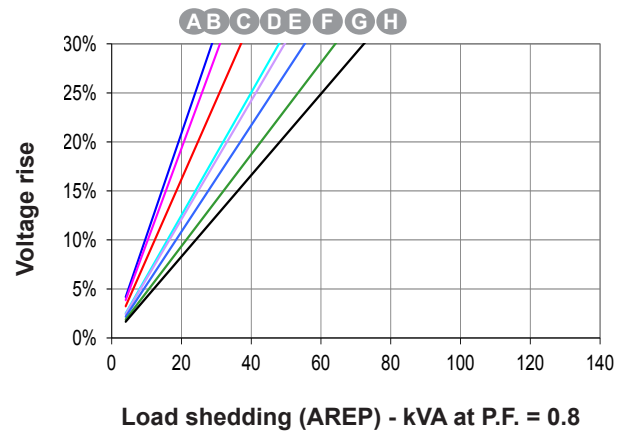
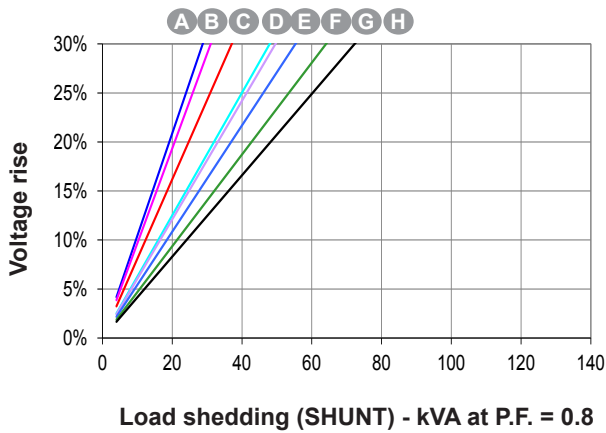
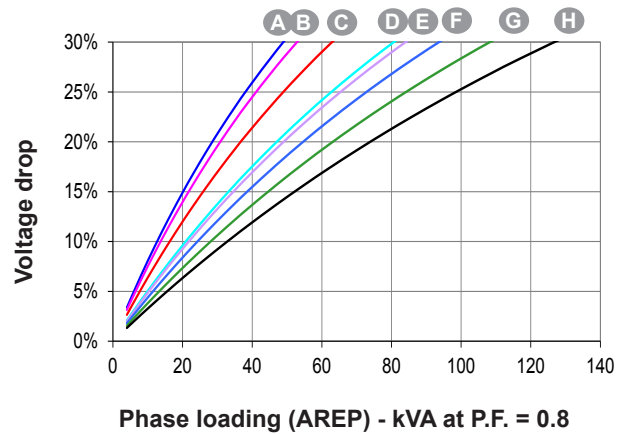
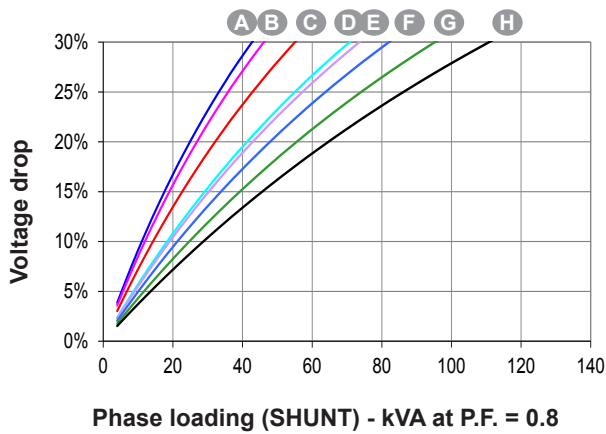
	A	B	C	D	E	F	G	H
<b>Kcc</b> Short-circuit ratio	0.49	0.46	0.44	0.49	0.42	0.4	0.43	0.4
<b>Xd</b> Direct-axis synchro. reactance unsaturated	257	267	279	246	281	294	283	303
<b>Xq</b> Quadrature-axis synchro. reactance unsaturated	131	136	142	125	143	150	144	154
<b>T'do</b> No-load transient time constant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

## Other class H / 400 V data

<b>io (A)</b> No-load excitation current SHUNT and AREP (*)	0.63	0.6	0.59	0.56	0.56	0.54	0.58	0.50 / 0.74
<b>ic (A)</b> On-load excitation current SHUNT and AREP (*)	2.14	2.13	2.21	1.92	2.19	2.23	2.38	2.11 / 3.24
<b>uc (V)</b> On-load excitation voltage SHUNT and AREP (*)	32.2	32	32.8	28.5	32.1	32.3	33.9	33.5 / 21.4
<b>ms</b> Response time ( $\Delta U = 20\%$ transient)	500	500	500	500	500	500	500	500
<b>kVA (**)</b> Start ( $\Delta U = 20\%$ cont. or $\Delta U = 30\%$ trans.) SHUNT	37.4	40.3	48.2	65.6	65.9	73.4	86.4	99.5
<b>kVA (**)</b> Start ( $\Delta U = 20\%$ cont. or $\Delta U = 30\%$ trans.) AREP	44.7	48.1	58	78.8	78.9	88	103.6	119.2
<b>%</b> Transient $\Delta U$ (on-load 4/4) SHUNT - P.F.: 0.8	20.1	20.1	20	17.5	19	19.1	18.4	18.9
<b>%</b> Transient $\Delta U$ (on-load 4/4) AREP - P.F.: 0.8	18	18	17.9	15.7	17	17.1	16.5	16.9
<b>W</b> No-load losses	739	733	785	888	888	908	1063	1152
<b>W</b> Heat dissipation	3067	3209	3593	3248	3955	4307	4694	5364

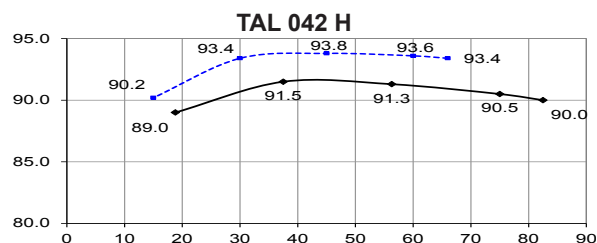
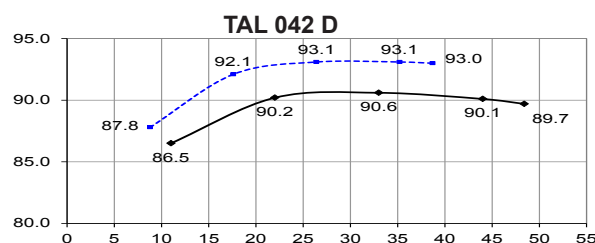
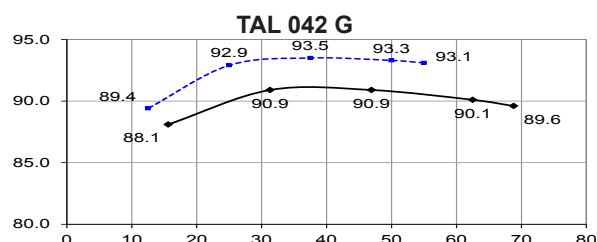
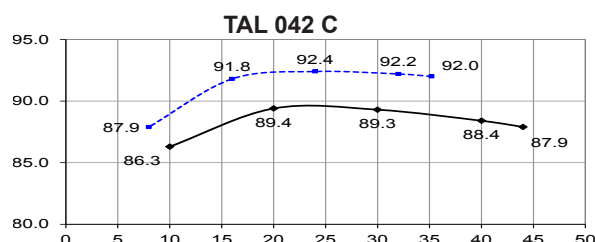
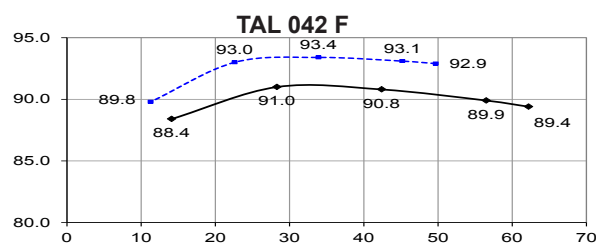
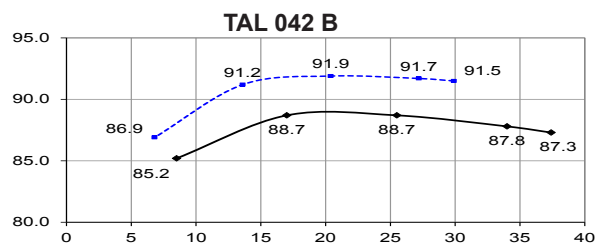
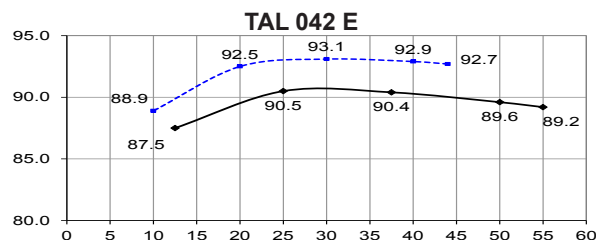
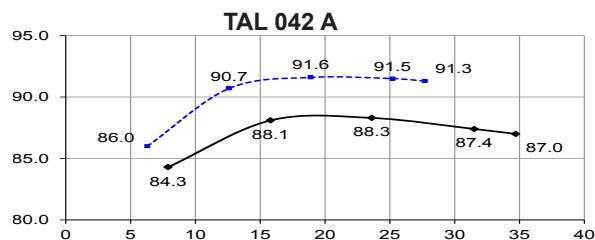
(\*) SHUNT / AREP : H - (\*\*) P.F. = 0.6

Transient voltage variation 400V - 50 Hz



- 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 400V (Y), 230V ( $\Delta$ ) at 50 Hz, then kVA must be multiplied by  $(400/U)^2$  or  $(230/U)^2$ .

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



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

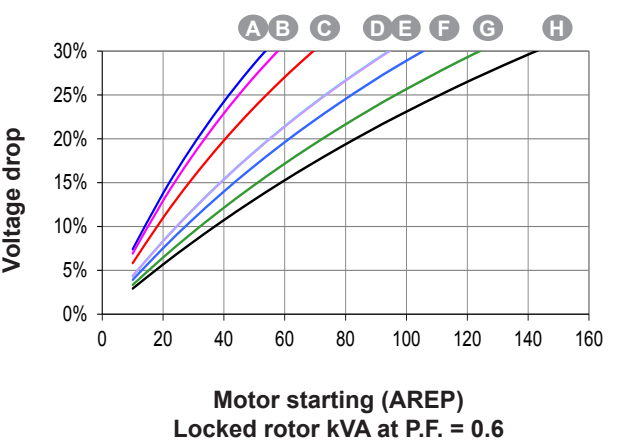
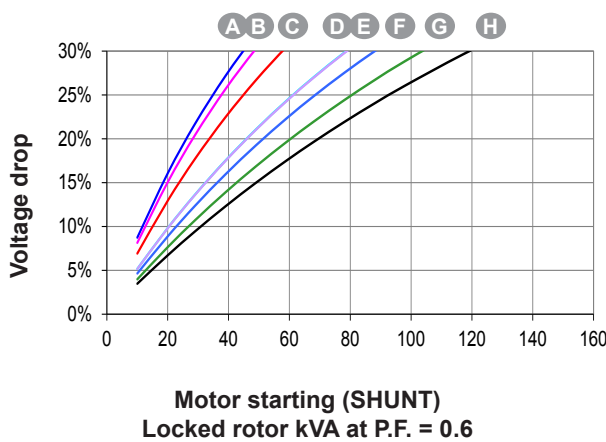
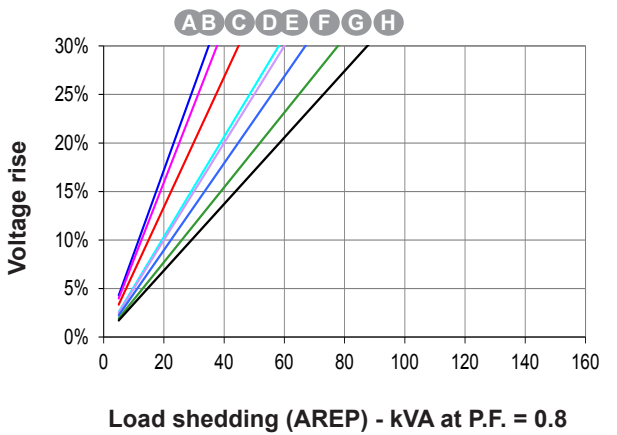
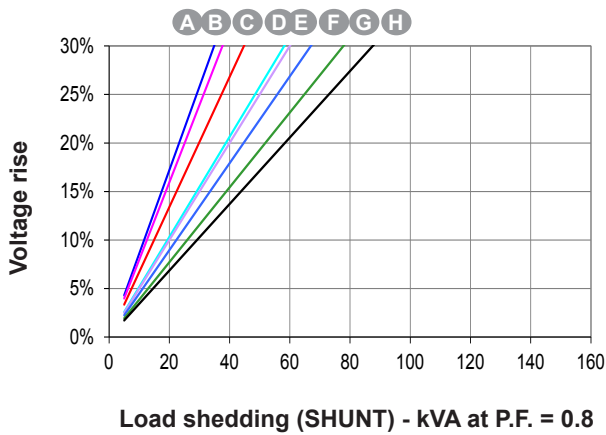
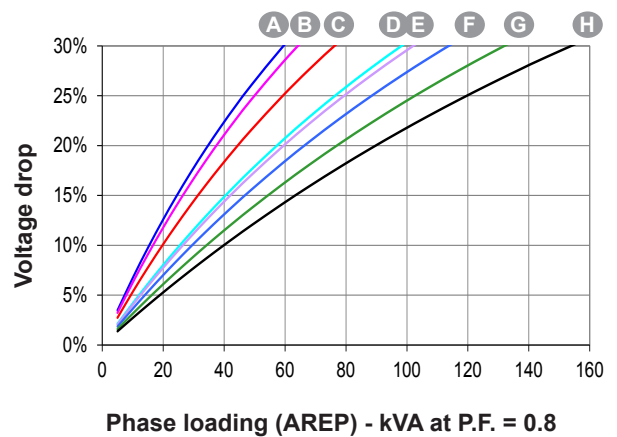
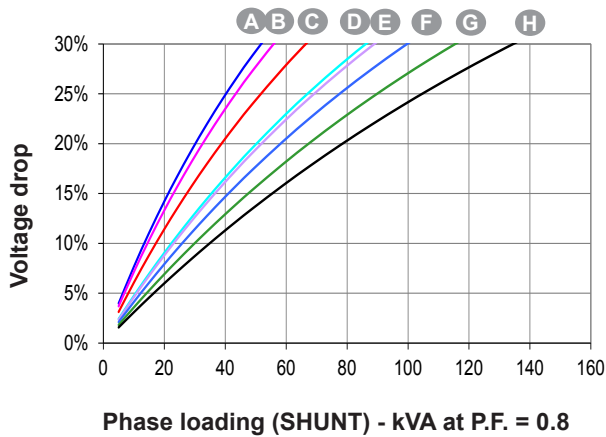
	A	B	C	D	E	F	G	H
<b>Kcc</b> Short-circuit ratio	0.47	0.44	0.42	0.46	0.41	0.38	0.41	0.38
<b>Xd</b> Direct-axis synchro. reactance unsaturated	270	280	292	257	292	308	295	316
<b>Xq</b> Quadrature-axis synchro. reactance unsaturated	138	143	148	131	149	157	150	161
<b>T'do</b> No-load transient time constant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

Other class H / 480 V data

<b>io (A)</b> No-load excitation current SHUNT and AREP (*)	0.63	0.6	0.59	0.56	0.56	0.54	0.58	0.48 / 0.74
<b>ic (A)</b> On-load excitation current SHUNT and AREP (*)	2.16	2.15	2.21	1.92	2.17	2.21	2.32	2.05 / 3.14
<b>uc (V)</b> On-load excitation voltage SHUNT and AREP (*)	32.8	32.6	33.3	29	32.4	32.7	34.1	33.6 / 21.5
<b>ms</b> Response time ( $\Delta U = 20\%$ transient)	500	500	500	500	500	500	500	500
<b>kVA(**)</b> Start ( $\Delta U = 20\%$ cont. or $\Delta U = 30\%$ trans.) SHUNT	44.8	48.4	57.7	78.7	78.9	88.1	103.6	119.2
<b>kVA(**)</b> Start ( $\Delta U = 20\%$ cont. or $\Delta U = 30\%$ trans.) AREP	53.6	57.7	69.4	94.3	94.5	105.4	124.1	142.7
<b>%</b> Transient $\Delta U$ (on-load 4/4) SHUNT - P.F.: 0.8 <sub>L<sub>AG</sub></sub>	20.7	20.7	20.5	18	19.4	19.6	18.9	19.3
<b>%</b> Transient $\Delta U$ (on-load 4/4) AREP - P.F.: 0.8 <sub>L<sub>AG</sub></sub>	18.5	18.6	18.4	16.2	17.4	17.6	16.9	17.3
<b>W</b> No-load losses	1051	1047	1121	1270	1270	1300	1513	1642
<b>W</b> Heat dissipation	3603	3764	4184	3867	4620	5061	5489	6277

(\*) SHUNT / AREP : H - (\*\*) P.F. = 0.6

Transient voltage variation 480V - 60 Hz

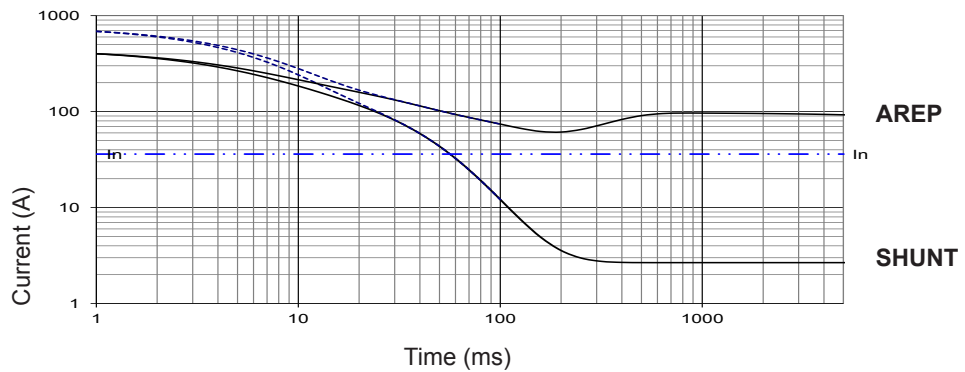


- 1) For a starting P.F. other than 0.6, the starting kVA must be multiplied by  $K = \text{Sine P.F.} / 0.8$
- 2) For voltages other than 480V (Y), 277V (Δ), 240V (YY) at 60 Hz, then kVA must be multiplied by  $(480/U)^2$  or  $(277/U)^2$  or  $(240/U)^2$ .

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

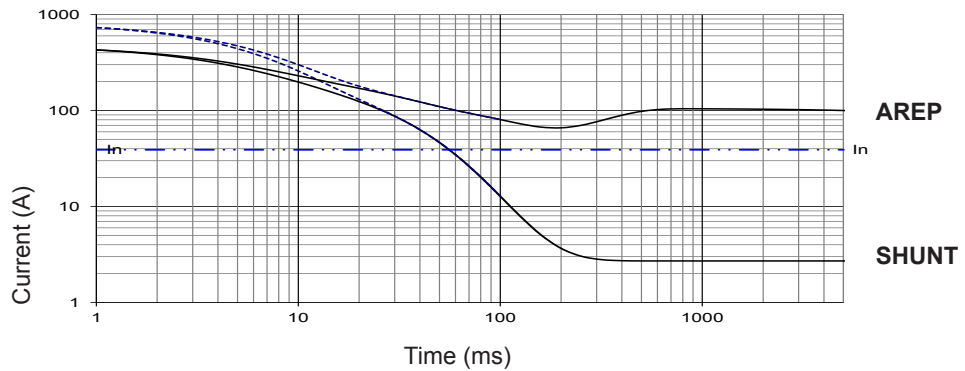
**TAL 042 A**

Symmetrical —  
Asymmetrical - - -



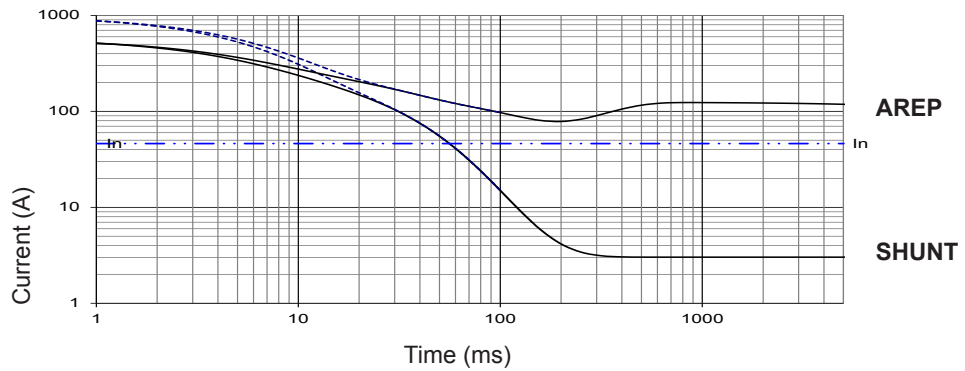
**TAL 042 B**

Symmetrical —  
Asymmetrical - - -



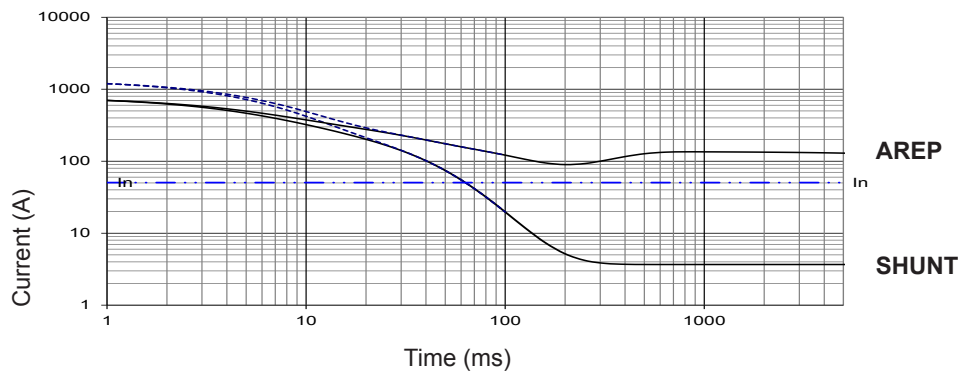
**TAL 042 C**

Symmetrical —  
Asymmetrical - - -



**TAL 042 D**

Symmetrical —  
Asymmetrical - - -



**Influence due to connection**

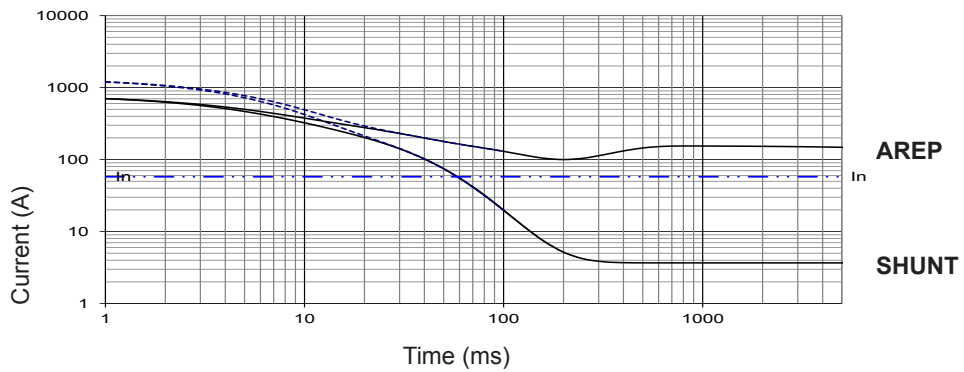
For (Δ) connection, use the following multiplication factor:  
- Current value x 1.732.



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

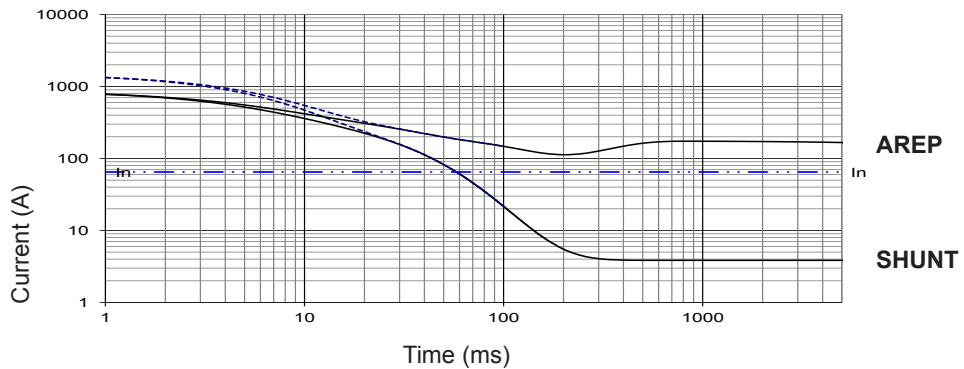
**TAL 042 E**

Symmetrical —  
Asymmetrical - - -



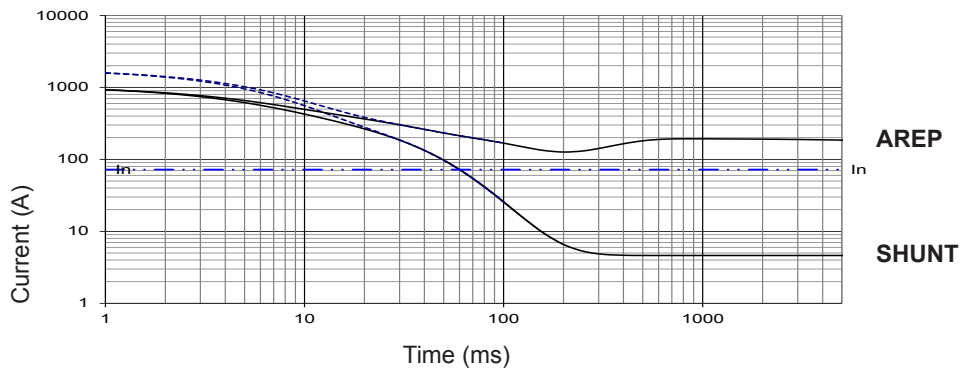
**TAL 042 F**

Symmetrical —  
Asymmetrical - - -



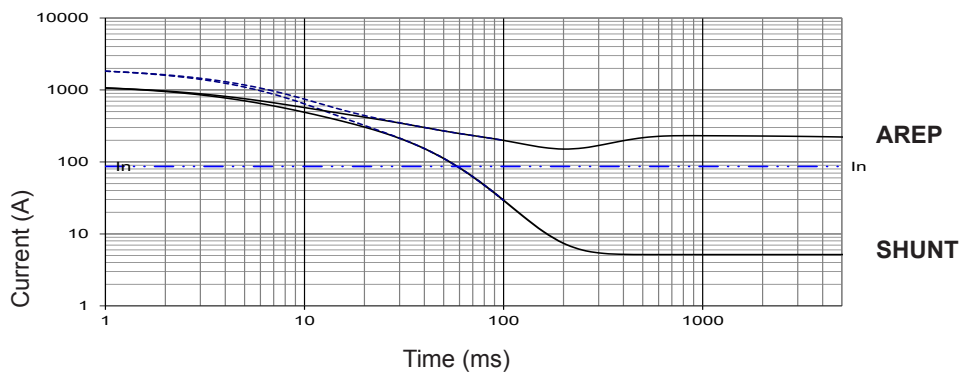
**TAL 042 G**

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	1	1.5	



# TAL 042 - Dedicated single-phase 18 to 42 kVA - 50 Hz / 23 to 53 kVA - 60 Hz

## 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 (m <sup>3</sup> /s)	50 Hz: 0.10 - 60 Hz: 0.13	Waveform: I.E.C. = FHT (**)	< 2 %

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

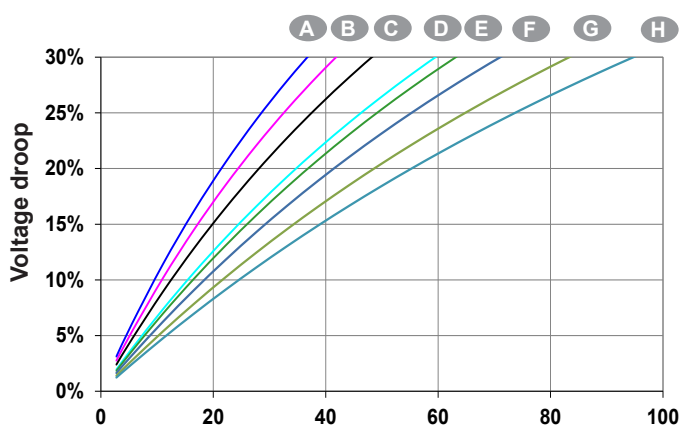
## Ratings / Efficiencies 50 Hz - 1500 R.P.M. - Winding M

kVA / kW - P.F. = 1 ( P.F. 0.8 : derating 15%)						
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		
Serie (SE) 	230 V	η %	230 V	230 V	230V	η %
Parallel (PA) 	115 V	η %	115 V	115 V	115 V	η %
<b>TAL 042 A</b>	18	88.1	16.5	19	20	87.4
<b>TAL 042 B</b>	20.5	88.1	18.5	21.5	22.5	87.4
<b>TAL 042 C</b>	22.5	89	20.5	24	25	88.4
<b>TAL 042 D</b>	25	90.6	23	26.5	27.5	90.2
<b>TAL 042 E</b>	28	90.1	25.5	29.5	31	89.6
<b>TAL 042 F</b>	31.5	90.3	28.5	33.5	34.5	89.8
<b>TAL 042 G</b>	35	90.4	32	37	38.5	89.9
<b>TAL 042 H</b>	42	90.5	38	44.5	46	90

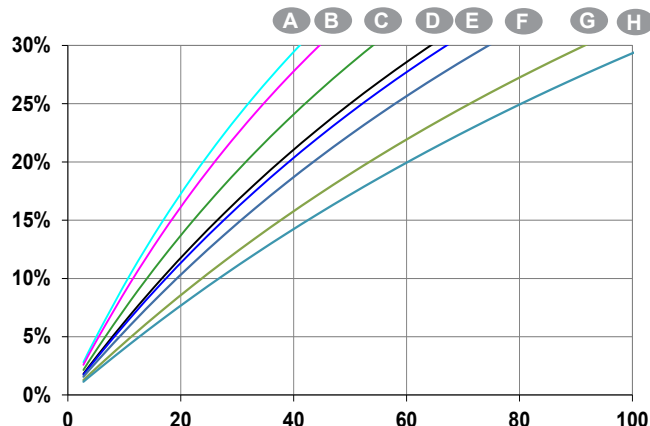
## Ratings / Efficiencies 60 Hz - 1800 R.P.M. - Winding M1

kVA / kW - P.F. = 1 ( P.F. 0.8 : derating 15%)						
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		
Serie (SE) 	240 V	η %	240 V	240 V	240V	η %
Parallel (PA) 	120 V	η %	120 V	120 V	120 V	η %
<b>TAL 042 A</b>	23	88.3	21	24.5	25.5	87.7
<b>TAL 042 B</b>	26	88.3	23.5	27.5	28.5	87.6
<b>TAL 042 C</b>	29	89	26	30.5	32	88.5
<b>TAL 042 D</b>	31.5	90.4	28.5	33.5	34.5	90
<b>TAL 042 E</b>	36	89.8	33	38	39.5	89.2
<b>TAL 042 F</b>	40	90	36.5	42.5	44	89.5
<b>TAL 042 G</b>	47	90	43	50	51	89.5
<b>TAL 042 H</b>	53	90.5	48	56	58	90

## Starting motor 230V - 50Hz



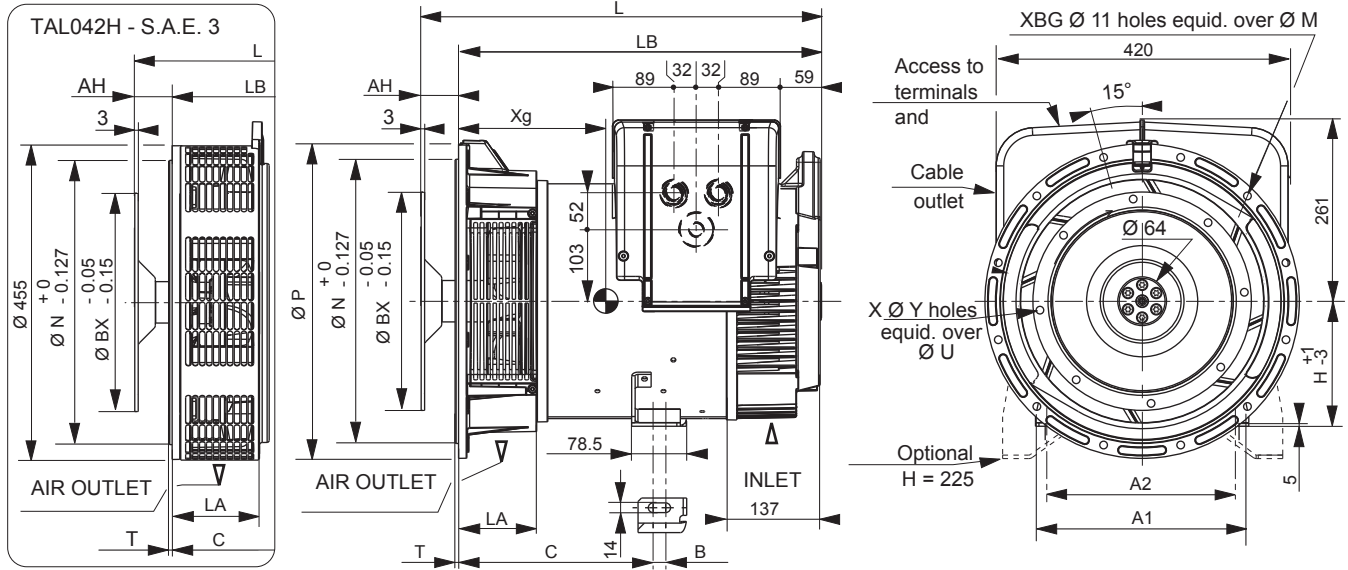
## Starting motor 240V - 60Hz



Locked rotor kVA at PF : 0.9

# TAL 042 - Three-phase & Single-phase

## Single bearing general arrangement



Dimensions (mm) and weight (kg)				
Type	L maxi	LB	Xg	Weight (kg)
TAL 042 A	565	503	237	117
TAL 042 B	565	503	242	122
TAL 042 C	565	503	252	133
TAL 042 D	610	548	275	165
TAL 042 E	610	548	275	165
TAL 042 F	650	588	287	181
TAL 042 G	650	588	295	186
TAL 042 H	680	618	310	187

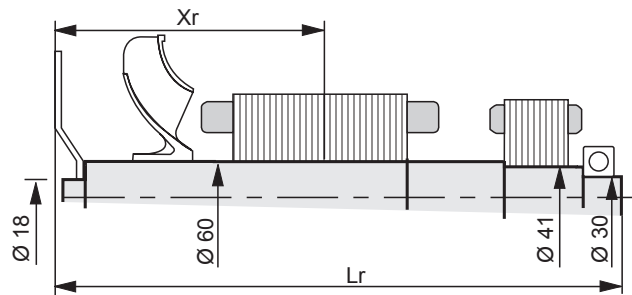
Shaft height (mm)	
H	Option
Standard	225
Feet length	
C	299 (A, B, C) / 312.5
B	23
A1	400
A2	356

Coupling		
Flange	3	4
Flex plate		
11 1/2	x	-
10	x	x
8	-	x
7 1/2	-	x

Flange (mm)						
S.A.E.	P	N	M	XBG	T	LA
4	406	361.95	381	12	6	122
3	452	409.58	428.62	12	5	105.3
-	-	-	-	-	-	-

Flex plate (mm)					
S.A.E.	BX	U	X	Y	AH
11 1/2	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 1/2	241.3	222.25	8	9	30.2

## Torsional data



Centre of gravity: Xr (mm), Rotor length: Lr (mm), Weight: M (kg), Moment of inertia: J (kgm <sup>2</sup> ): (4J = MD <sup>2</sup> )																
Flex plate	S.A.E. 7 1/2				S.A.E. 8				S.A.E. 10				S.A.E. 11 1/2			
	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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