

CONTINUOUS DUTY

**4 poles**  
**50 Hz - 1500 rpm / 60 Hz - 1800 rpm**

AMBIENT TEMPERATURE		40°C	WINDING DATA									
TEMPERATURE RISE		H	Winding code									
INSULATION CLASS		H	Number of leads									
POWER FACTOR		0,8	Winding pitch									
			50 Hz					60 Hz				
FREQUENCY		Hz										
	VOLTAGE	V	380	400	415	440	380	416	440	460	480	
	Connections	Star series Star parallel	190	200	208	220	190	208	220	230	240	
RATING POWER		kVA	680	680	680	680	700	740	775	805	825	
		kW	544	544	544	544	560	592	620	644	660	
EFFICIENCY [%] @ 0,8 p.f.		4/4	94,4	94,7	94,8	94,8	94,3	94,6	94,9	95,0	95,1	
		3/4	95,2	95,3	95,3	95,2	94,8	95,1	95,3	95,4	95,4	
		2/4	95,5	95,4	95,4	95,4	95,0	95,2	95,4	95,5	95,5	
EFFICIENCY [%] @ 1 p.f.		4/4	95,6	95,8	95,9	95,9	95,5	95,7	96,0	96,1	96,1	
		3/4	96,2	96,3	96,3	96,2	95,9	96,1	96,3	96,3	96,4	
		2/4	96,4	96,4	96,4	96,3	96,1	96,2	96,4	96,4	96,4	
SHORT CIRCUIT RATIO	SCR	0,27	0,3	0,32	0,36	0,22	0,25	0,27	0,28	0,30		
REACTANCES [%]												
Direct axis synchronous	X <sub>d</sub>	387	349	324	288	353	421	394	375	353		
Quadrature axis synchronous	X <sub>q</sub>	204	184	171	152	252	222	208	198	186		
Direct axis transient	X' <sub>d</sub>	33,6	30,3	28,1	25,0	41,5	36,6	34,2	32,5	30,6		
Direct axis subtransient	X'' <sub>d</sub>	13,6	12,3	11,4	10,2	16,8	14,9	13,9	13,2	12,4		
Quadrature axis subtransient	X'' <sub>q</sub>	17,4	15,7	14,6	13,0	21,5	19,0	17,7	16,9	15,9		
Negative sequence	X <sub>2</sub>	15,5	14,0	13,0	11,6	19,2	16,9	15,8	15,0	14,2		
Zero sequence	X <sub>0</sub>	3,5	3,2	2,9	2,6	4,3	3,8	3,6	3,4	3,2		
TIME CONSTANTS [s]												
Open circuit	T' <sub>do</sub>						2,72					
Transient	T' <sub>d</sub>						0,23					
Subtransient	T'' <sub>d</sub>						0,016					
Armature	T <sub>a</sub>						0,022					

**MECHANICAL CHARACTERISTICS**

D-end bearing/Lubrication	6322 C3 / With grease nipple
N-end bearing/Lubrication	6317 2Z C3 / Prelubricated
Overspeed [r.p.m.]	2250
Inertia (J) [kgm <sup>2</sup> ]	Refer to B34 construction 11,69
Weight [kg]	Refer to B34 construction 1800
Method of cooling	IC01
Cooling air required [m <sup>3</sup> /s] @ 50/60 Hz	0,93 / 1,12
Degree of protection	IP23
Types of construction available	B2 (SAE) - IM B34
Direction of rotation (Standard)	CW

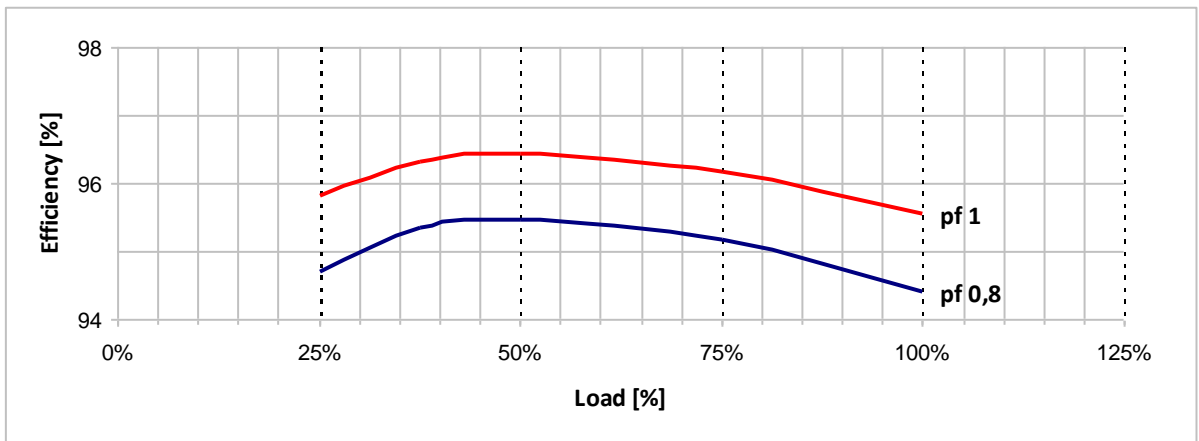
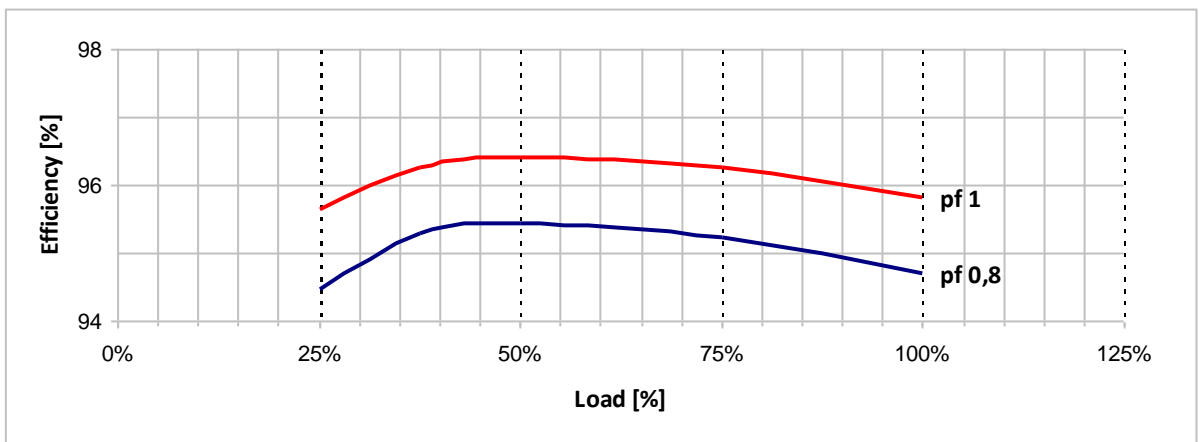
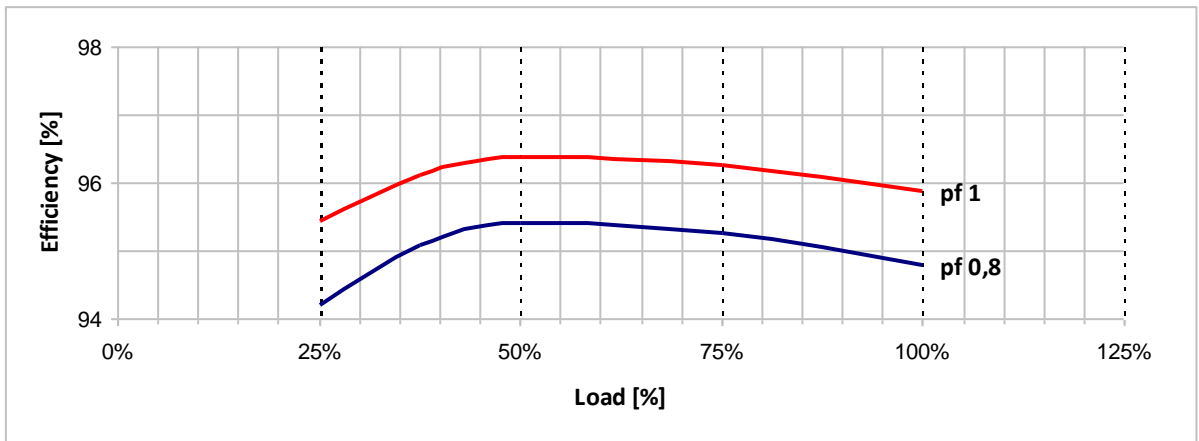
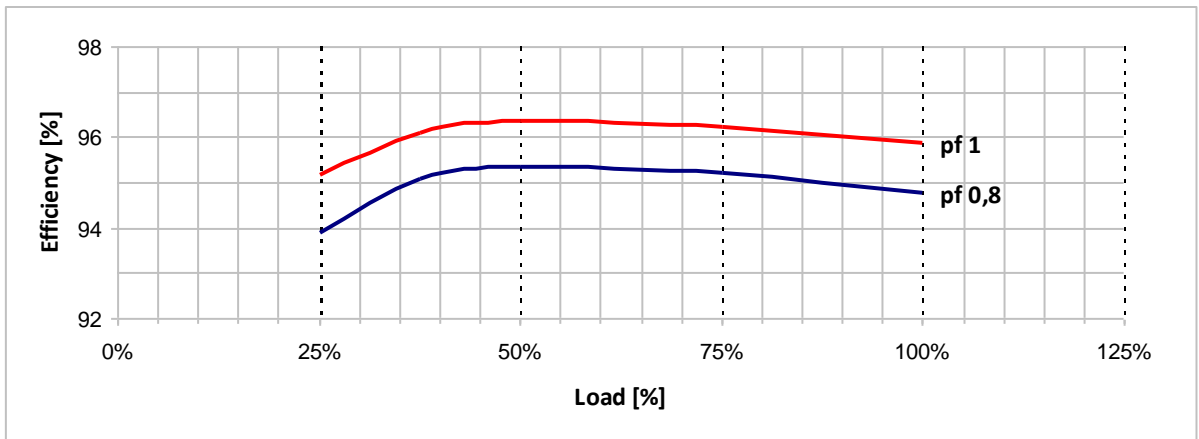
**OTHER DATA**

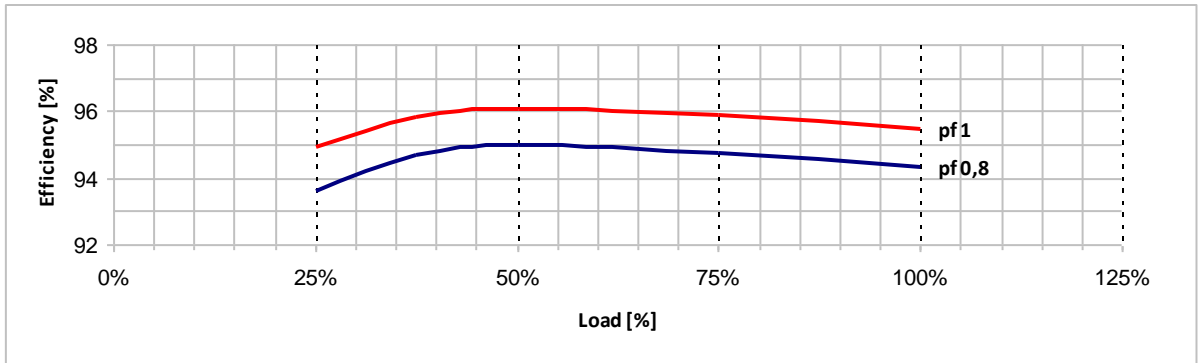
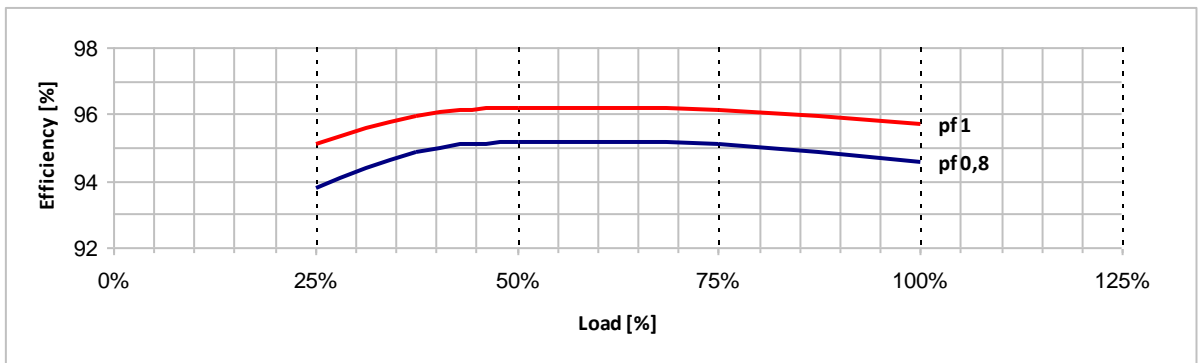
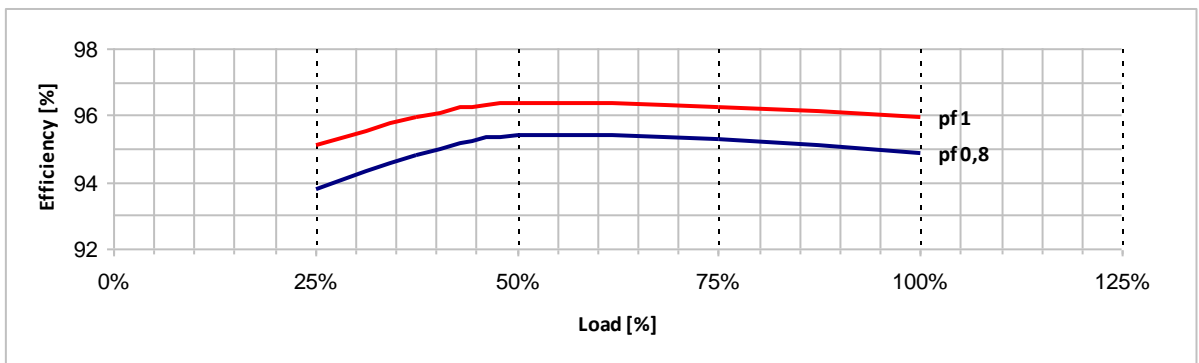
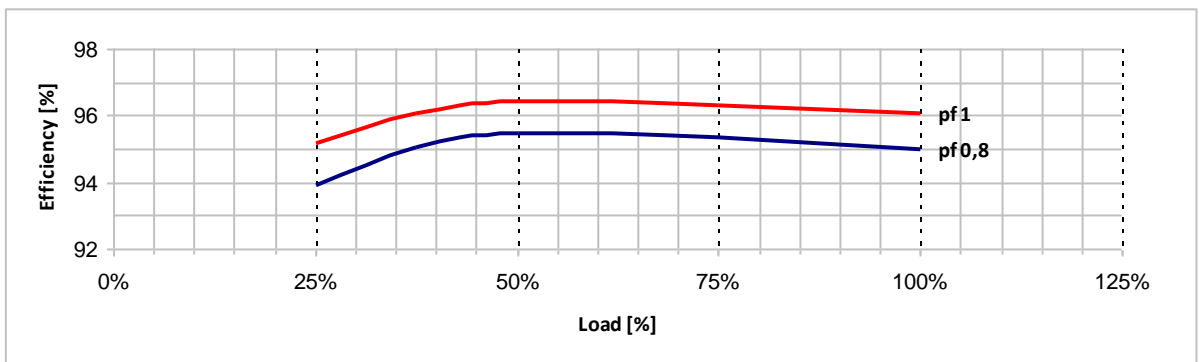
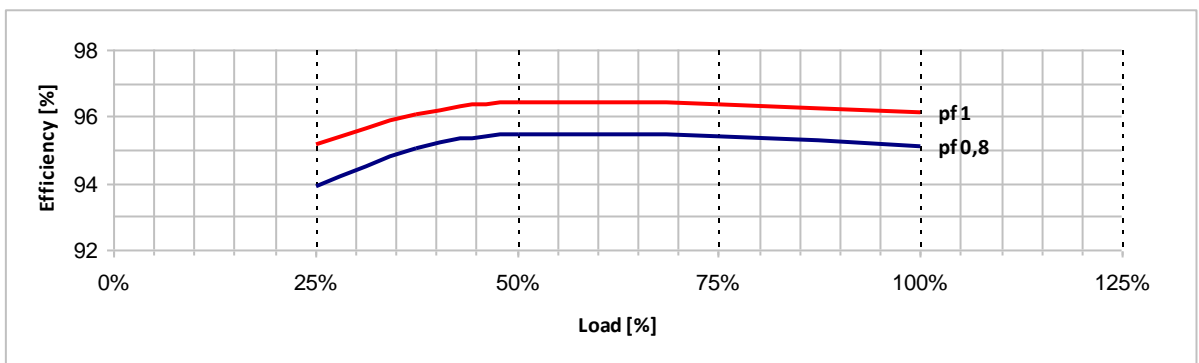
Phase resistance [Ω] @ 20 °C - Star series	0,004
Overloads	10% for 1 hour every 12 hours
3-phase short circuit sustained current	≥ 300 % (3 I <sub>n</sub> ) with auxiliary winding
Voltage regulation accuracy	± 0,5 % I <sub>n</sub> steady state condition
Radio interference	EN 55011 - Class B Group 1
Wave form THF	< 2%
Total harmonic content	< 2% - At no load

**STANDARDS**

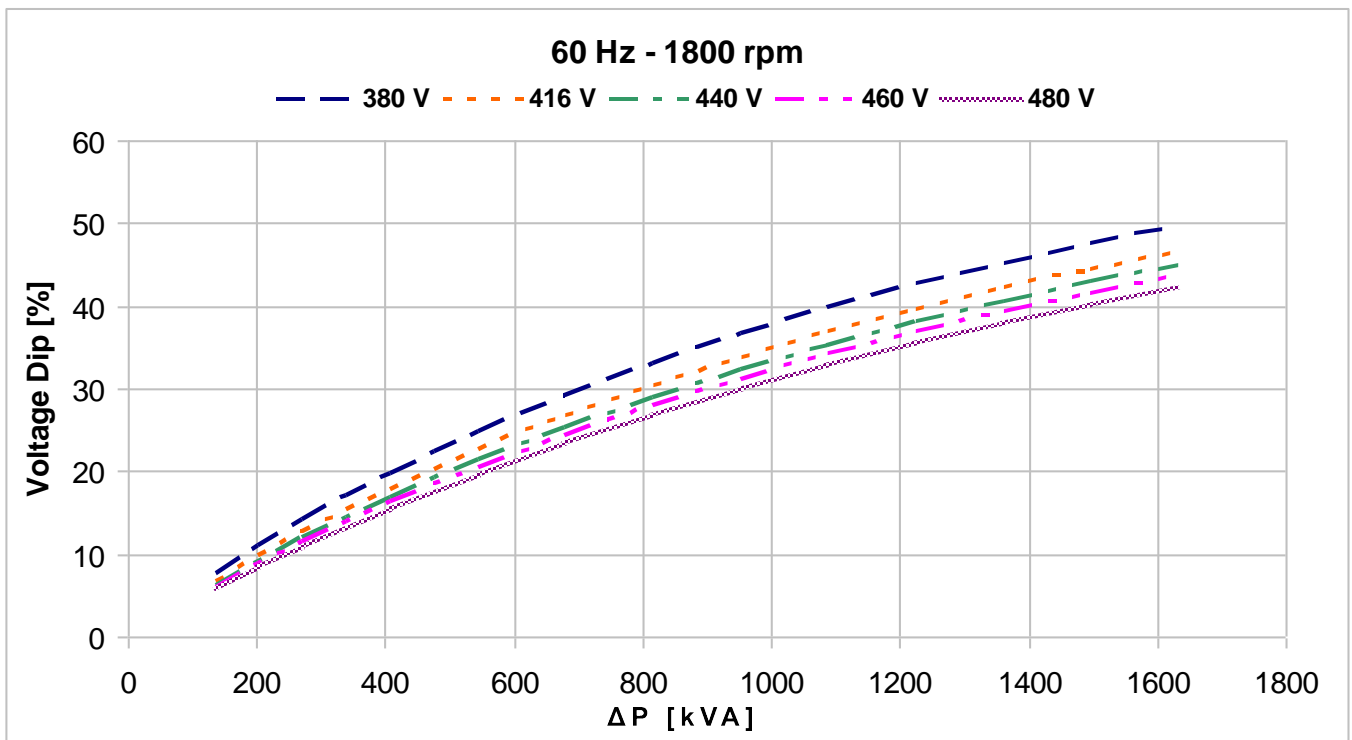
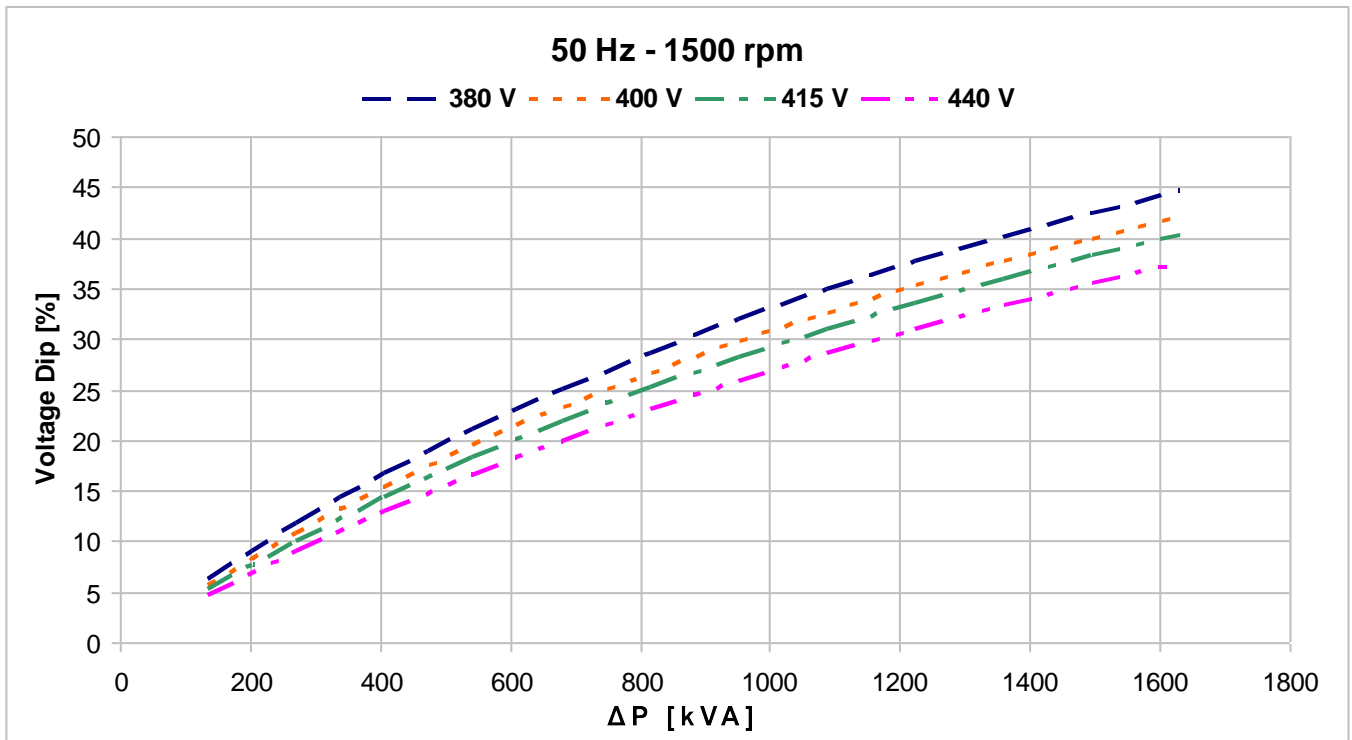
IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

**Typical efficiency curves**
**50 Hz - 1500 rpm**

**Typical efficiency curves**
**50 Hz - 1500 rpm**
**380 V**

**400 V**

**415 V**

**440 V**


**Typical efficiency curves**
**60 Hz - 1800 rpm**
**380 V**

**416 V**

**440 V**

**460 V**

**480 V**


### Locked rotor motor starting curves (\*)



$$\Delta P = P_n \times \frac{I_s / I_n}{\cos \varphi_n \times \eta_n}$$

(\*): A coefficient of 0,85 must be applied to the voltage dip if the load has a power factor equal or greater than 0,8.