

CONTINUOUS DUTY

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

AMBIENT TEMPERATURE TEMPERATURE RISE INSULATION CLASS POWER FACTOR	40°C H H 0,8	WINDING DATA							
		50 Hz				60 Hz			
		Winding code	80						
		Number of leads	6						
		Winding pitch	2/3						
FREQUENCY	Hz	50 Hz			60 Hz				
VOLTAGE	Star V	380	400	415	416	440	460	480	
RATING	kVA kW	2200 1760	2200 1760	2200 1760	2430 1944	2500 2000	2550 2040	2635 2108	
EFFICIENCY [%] @ 0,8 p.f.	4/4	96,2	96,2	96,2	96,3	96,4	96,5	96,5	
	3/4	96,5	96,5	96,5	96,3	96,4	96,5	96,5	
	2/4	96,3	96,3	96,3	95,9	96,0	96,1	96,1	
EFFICIENCY [%] @ 1 p.f.	4/4	97,0	97,0	97,0	97,1	97,2	97,2	97,2	
	3/4	97,2	97,2	97,2	97,1	97,2	97,2	97,2	
	2/4	97,1	97,1	97,1	96,8	96,8	96,9	96,9	
SHORT CIRCUIT RATIO	SCR	0,31	0,34	0,37	0,28	0,30	0,32	0,34	
REACTANCES [%]									
Direct axis synchronous	X <sub>d</sub>	346	312	290	382	352	328	311	
Quadrature axis synchronous	X <sub>q</sub>	194	175	163	214	197	184	175	
Direct axis transient	X' <sub>d</sub>	31,8	28,7	26,7	35,2	32,3	30,2	28,6	
Direct axis subtransient	X'' <sub>d</sub>	13,2	11,9	11,1	14,6	13,4	12,5	11,9	
Quadrature axis subtransient	X'' <sub>q</sub>	13,1	11,8	11,0	14,5	13,3	12,4	11,8	
Negative sequence	X <sub>2</sub>	13,1	11,8	11,0	14,5	13,3	12,4	11,8	
Zero sequence	X <sub>0</sub>	3,3	3,0	2,8	3,7	3,4	3,2	3,0	
TIME CONSTANTS [s]									
Open circuit	T' <sub>do</sub>	3,6							
Transient	T' <sub>d</sub>	0,35							
Subtransient	T'' <sub>d</sub>	0,018							
Armature	T <sub>a</sub>	0,032							

**MECHANICAL CHARACTERISTICS**

D-end bearing/Lubrication	6328 C3 / With grease nipple
N-end bearing/Lubrication	6326 C3 / With grease nipple
Overspeed [r.p.m.]	2250
Inertia (J) [kgm <sup>2</sup> ]	Refer to B34 construction 52,5
Weight [kg]	Refer to B34 construction 4400
Method of cooling	IC01
Cooling air required [m <sup>3</sup> /s] @ 50/60 Hz	2,60 / 3,10
Degree of protection	IP23
Types of construction available	B2 (SAE) - IM B34 - IM B20
Direction of rotation (Standard)	CW

**OTHER DATA**

Phase resistance [ $\Omega$ ] @ 20 °C - Star series	0,75
Overloads	10% for 1 hour every 12 hours
3-phase short circuit sustained current	$\geq 300$ % (3 I <sub>n</sub> ) with VARICOMP device
Voltage regulation accuracy	$\pm 0,5$ % I <sub>n</sub> steady state condition
Radio interference	EN 55011 - Class B Group 1
Wave form THF	< 5%
Total harmonic content	< 5% - At no load

**STANDARDS**

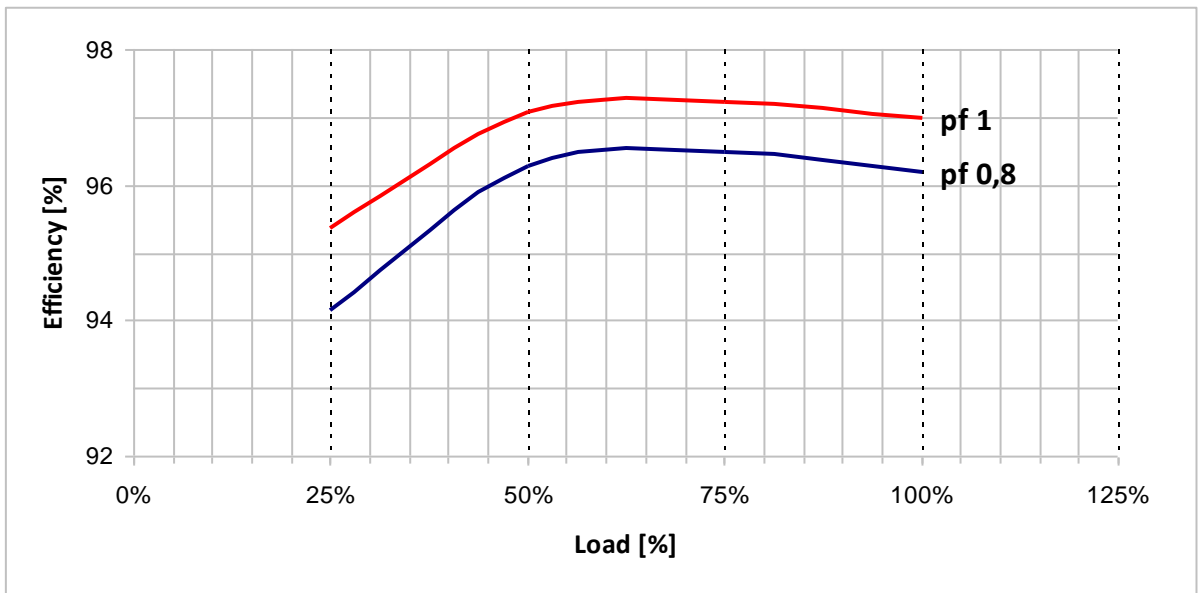
IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

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

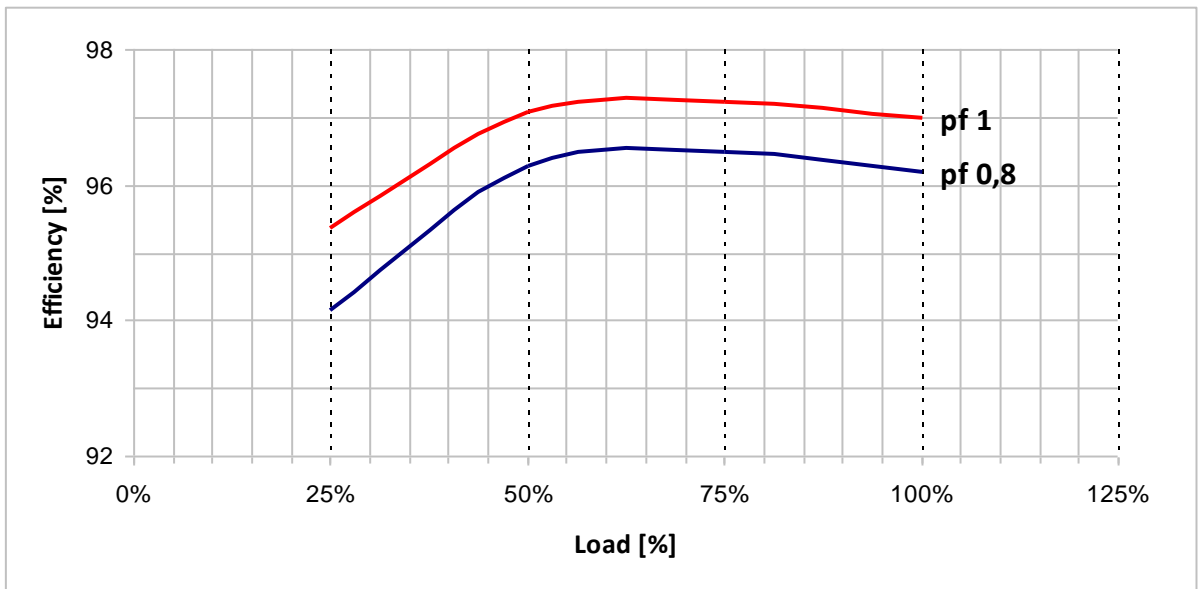
**Typical efficiency curves**

**50 Hz - 1500 rpm**

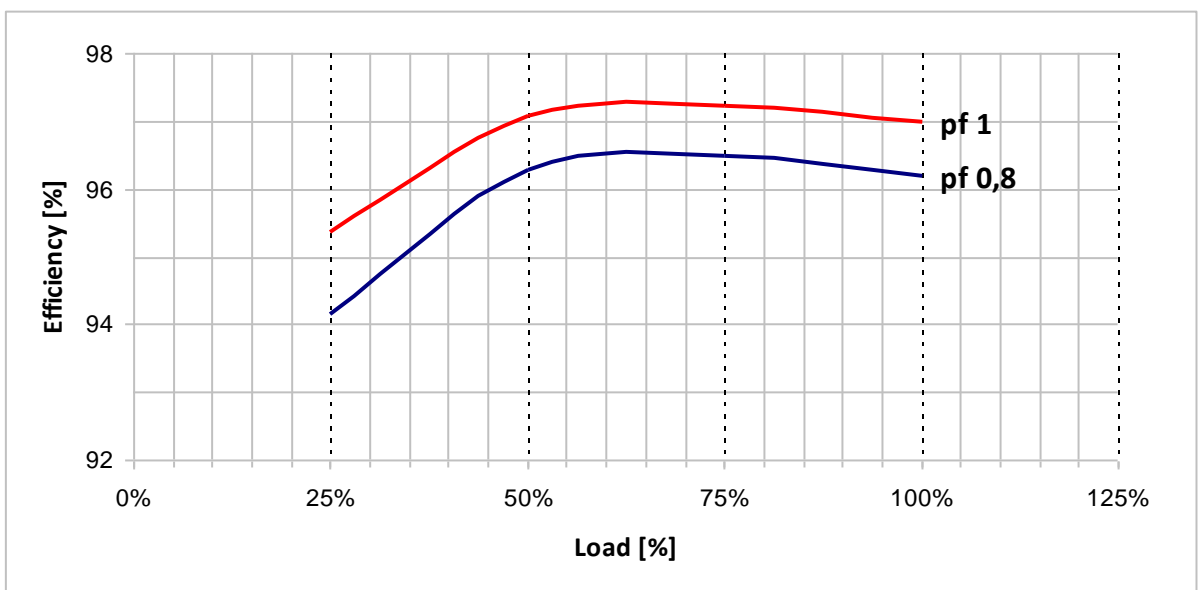
**380 V**

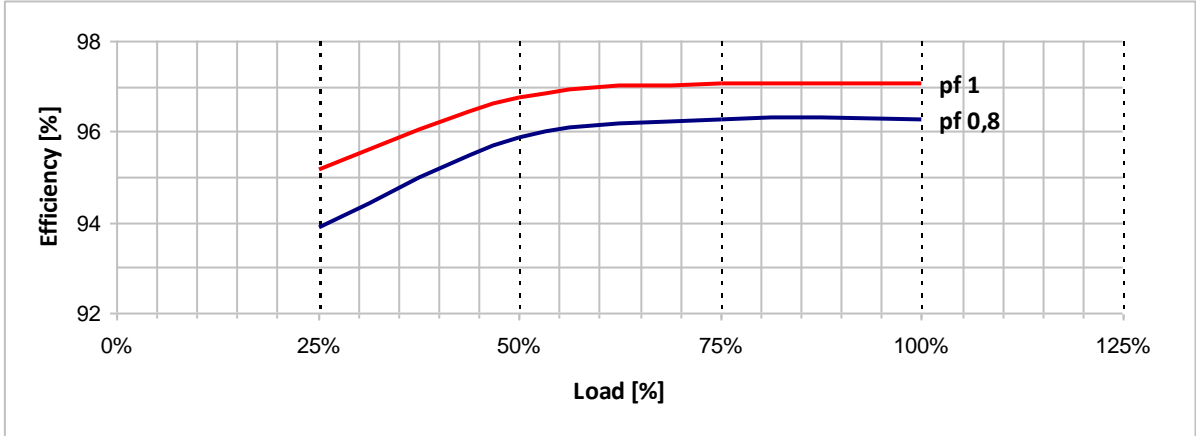
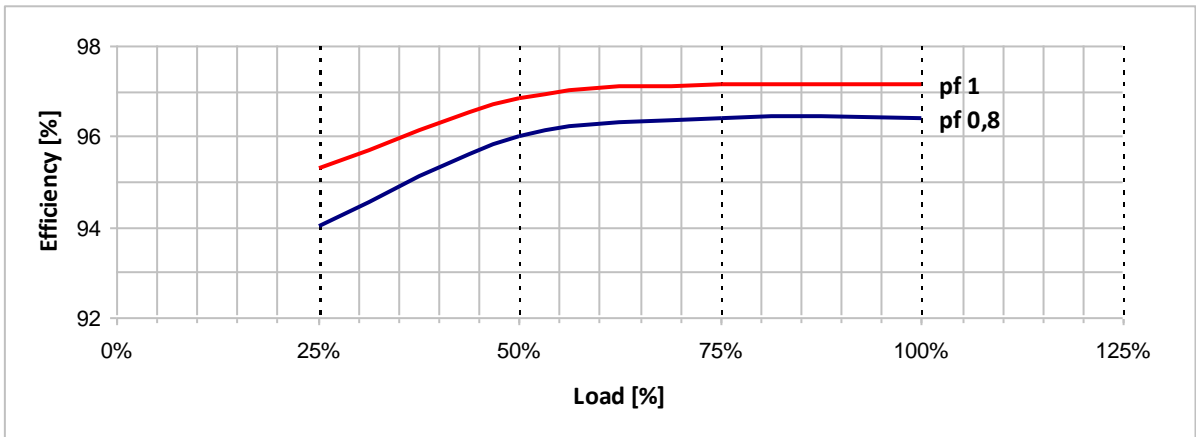
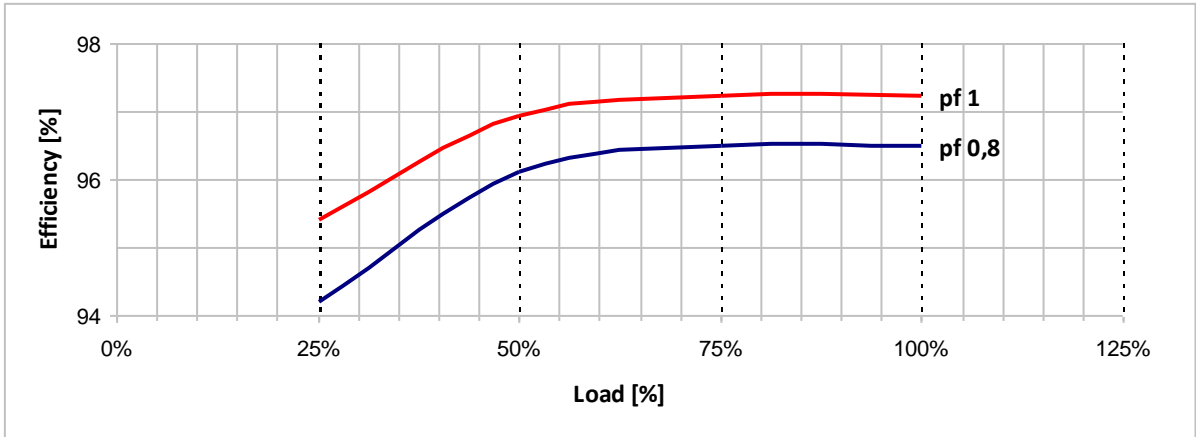
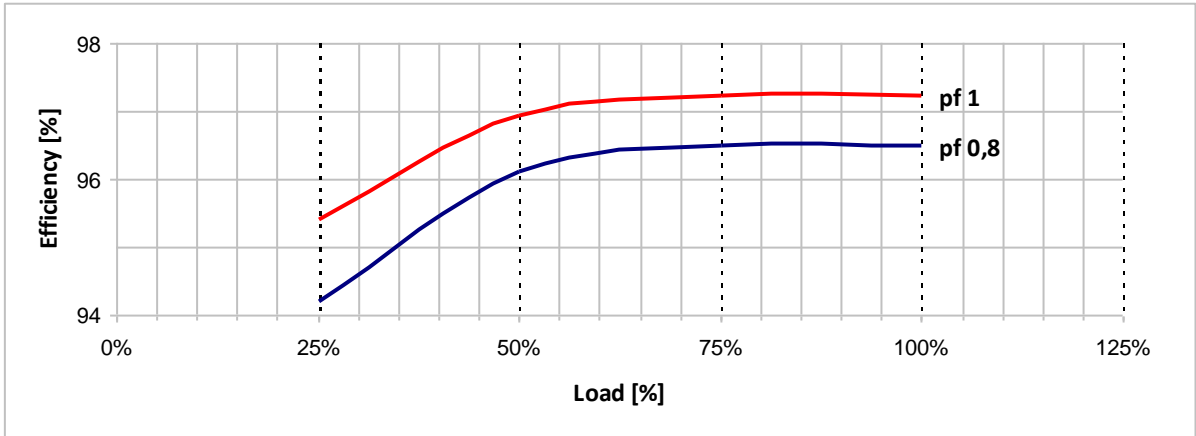


**400 V**

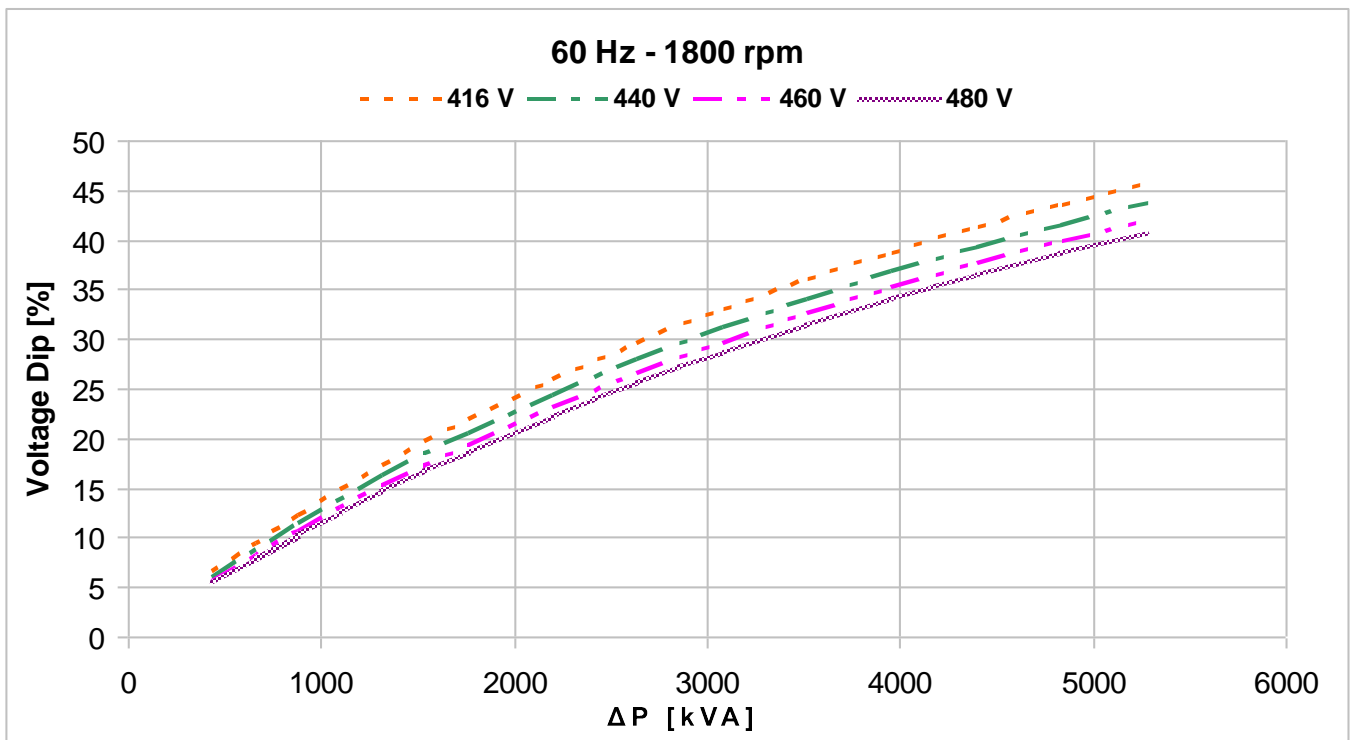
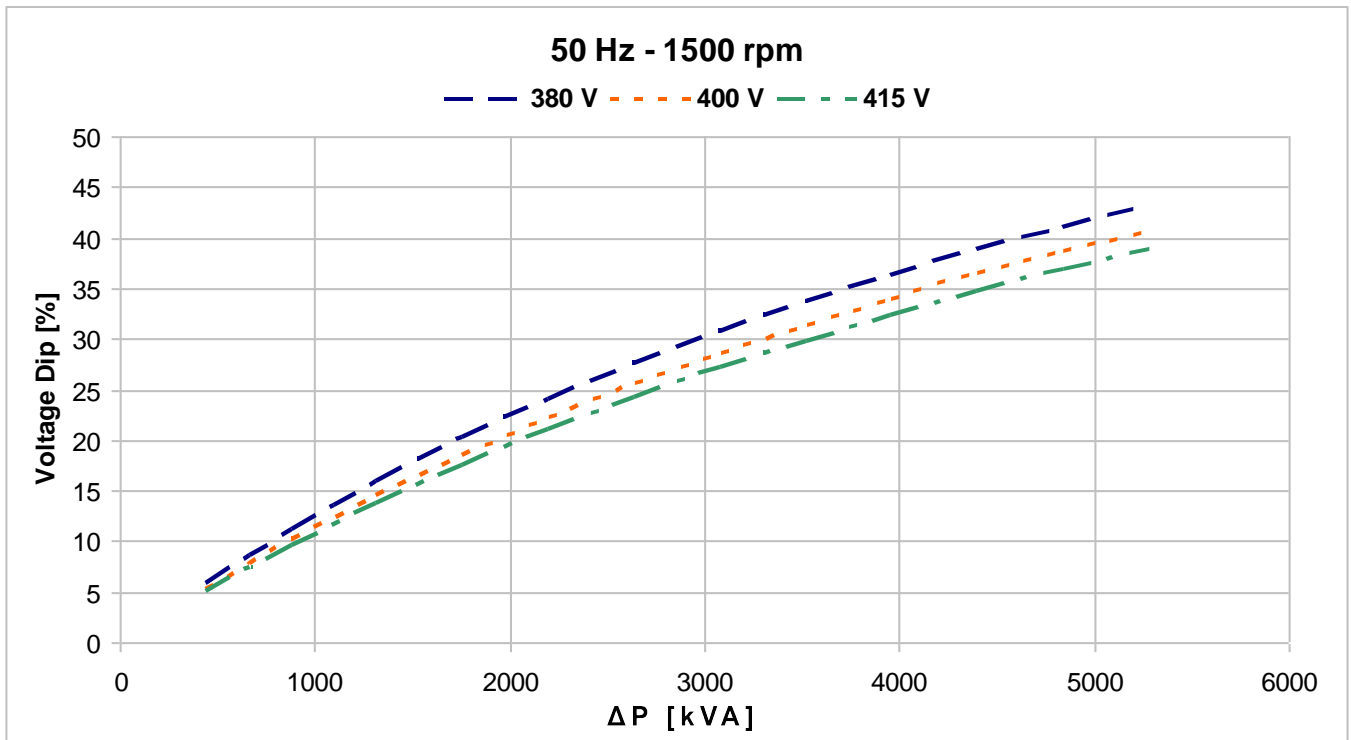


**415 V**



**Typical efficiency curves**
**60 Hz - 1800 rpm**
**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.