

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

<b>AMBIENT TEMPERATURE</b>	40°C	<b>WINDING DATA</b>								Winding code	<b>80</b>
<b>TEMPERATURE RISE</b>	H									Number of leads	<b>6</b>
<b>INSULATION CLASS</b>	H									Winding pitch	<b>2/3</b>
<b>POWER FACTOR</b>	0,8										
<b>FREQUENCY</b>	Hz	<b>50 Hz</b>			<b>60 Hz</b>						
<b>VOLTAGE</b>	Star V	<b>380</b>	<b>400</b>	<b>415</b>	<b>416</b>	<b>440</b>	<b>460</b>	<b>480</b>			
<b>RATING</b>	kVA	<b>2500</b>	<b>2500</b>	<b>2500</b>	<b>2810</b>	<b>2900</b>	<b>3000</b>	<b>3000</b>			
	kW	<b>2000</b>	<b>2000</b>	<b>2000</b>	<b>2248</b>	<b>2320</b>	<b>2400</b>	<b>2400</b>			
<b>EFFICIENCY [%] @ 0,8 p.f.</b>	4/4	96,4	96,4	96,5	96,5	96,6	96,6	96,7			
	3/4	96,7	96,7	96,8	96,4	96,5	96,5	96,6			
	2/4	96,5	96,5	96,6	96,2	96,3	96,3	96,4			
<b>EFFICIENCY [%] @ 1 p.f.</b>	4/4	97,2	97,2	97,2	97,2	97,3	97,3	97,4			
	3/4	97,4	97,4	97,5	97,2	97,2	97,2	97,3			
	2/4	97,2	97,2	97,3	97,0	97,1	97,1	97,2			
<b>SHORT CIRCUIT RATIO</b>	SCR	0,38	0,42	0,45	0,34	0,37	0,39	0,42			
<b>REACTANCES [%]</b>											
Direct axis synchronous	X <sub>d</sub>	338	305	283	380	351	332	305			
Quadrature axis synchronous	X <sub>q</sub>	188	170	158	212	196	185	170			
Direct axis transient	X' <sub>d</sub>	31,2	28,2	26,2	35,2	32,4	30,7	28,2			
Direct axis subtransient	X'' <sub>d</sub>	13,2	11,9	11,1	14,8	13,7	13,0	11,9			
Quadrature axis subtransient	X'' <sub>q</sub>	14,3	12,9	12,0	16,1	14,8	14,0	12,9			
Negative sequence	X <sub>2</sub>	13,3	12,0	11,1	15,0	13,8	13,1	12,0			
Zero sequence	X <sub>0</sub>	3,7	3,3	3,1	4,2	3,8	3,6	3,3			
<b>TIME CONSTANTS [s]</b>											
Open circuit	T' <sub>do</sub>				3,94						
Transient	T' <sub>d</sub>				0,36						
Subtransient	T'' <sub>d</sub>				0,018						
Armature	T <sub>a</sub>				0,042						

**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 61,5
Weight [kg]	Refer to B34 construction 5100
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 [Ω] @ 20 °C - Star series	0,5
Overloads	10% for 1 hour every 12 hours
3-phase short circuit sustained current	≥ 300 % (3 I <sub>n</sub> ) with VARICOMP device
Voltage regulation accuracy	± 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

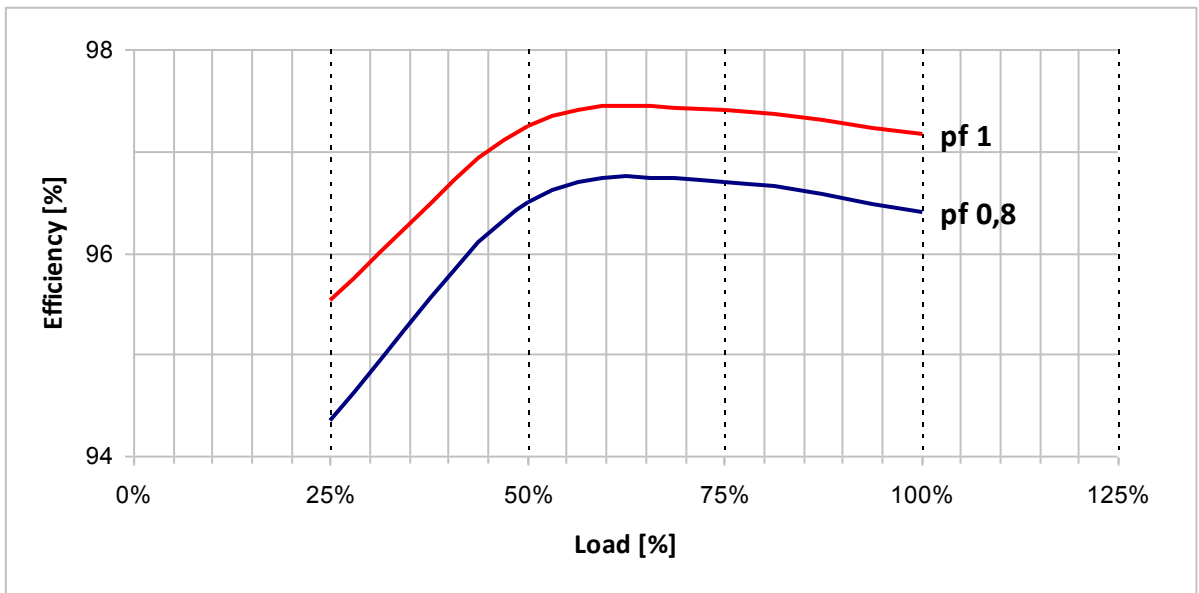
**STANDARDS**

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

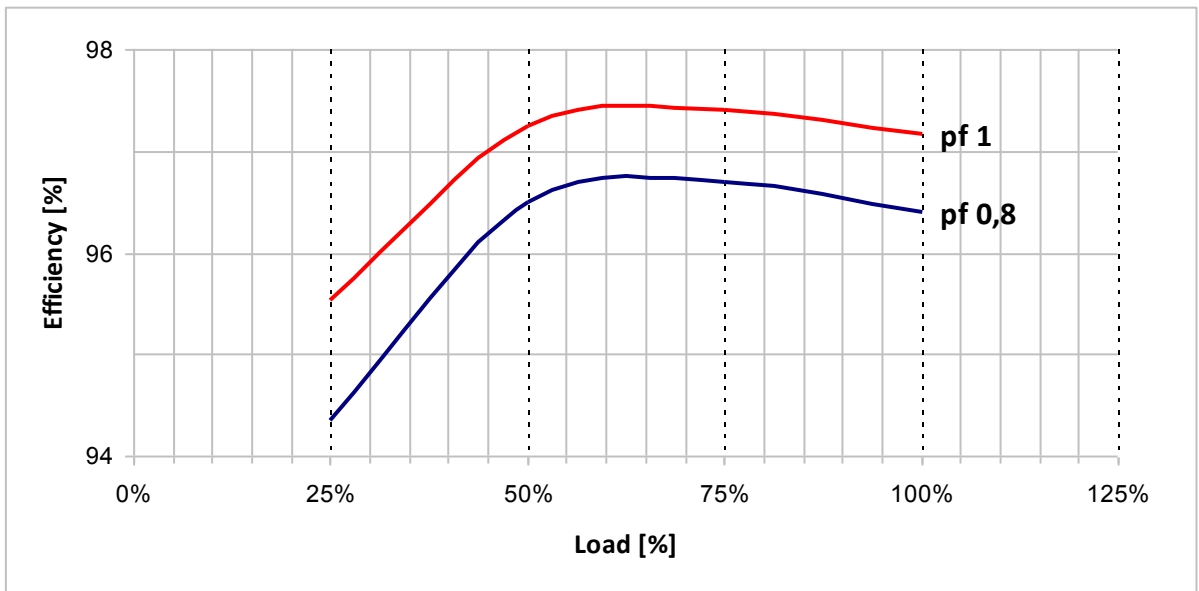
**Typical efficiency curves**

**50 Hz - 1500 rpm**

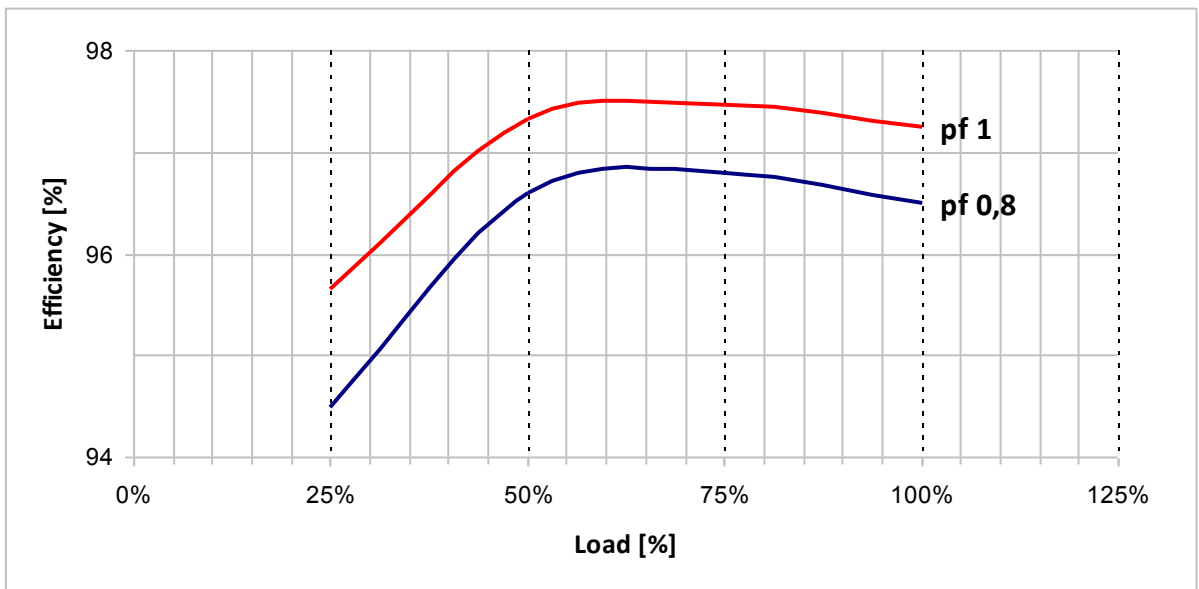
**380 V**

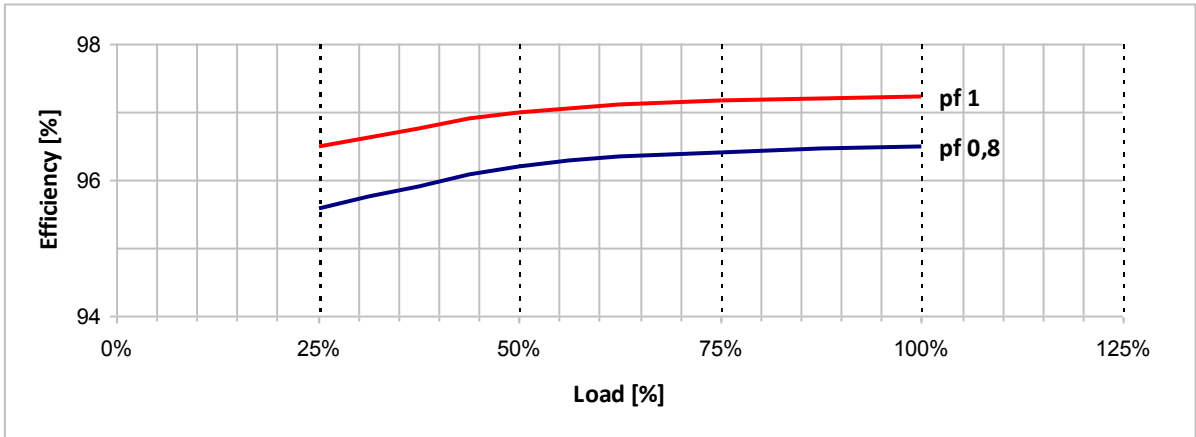
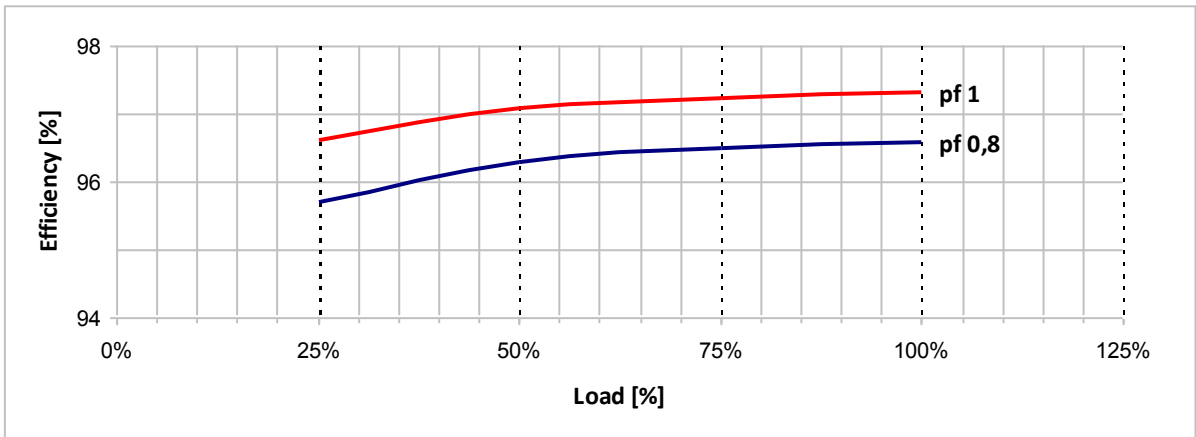
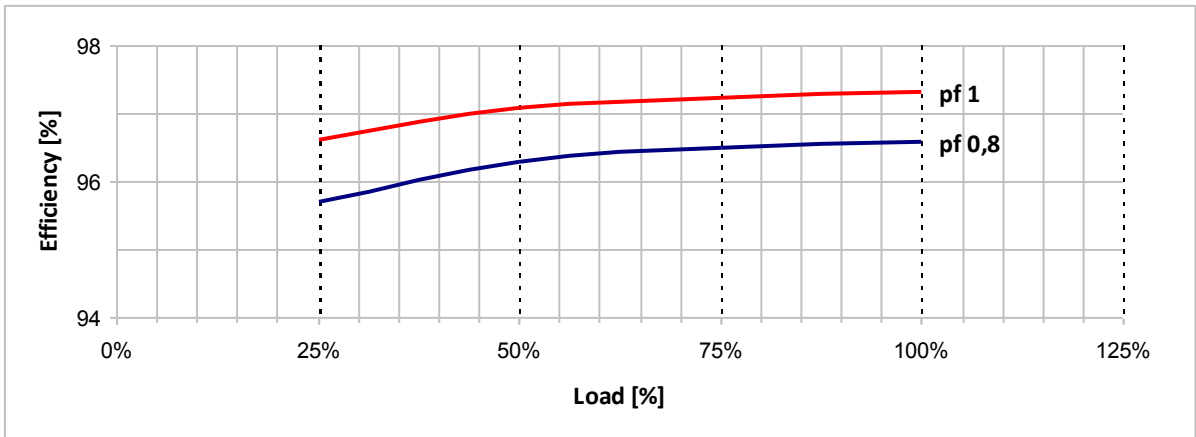
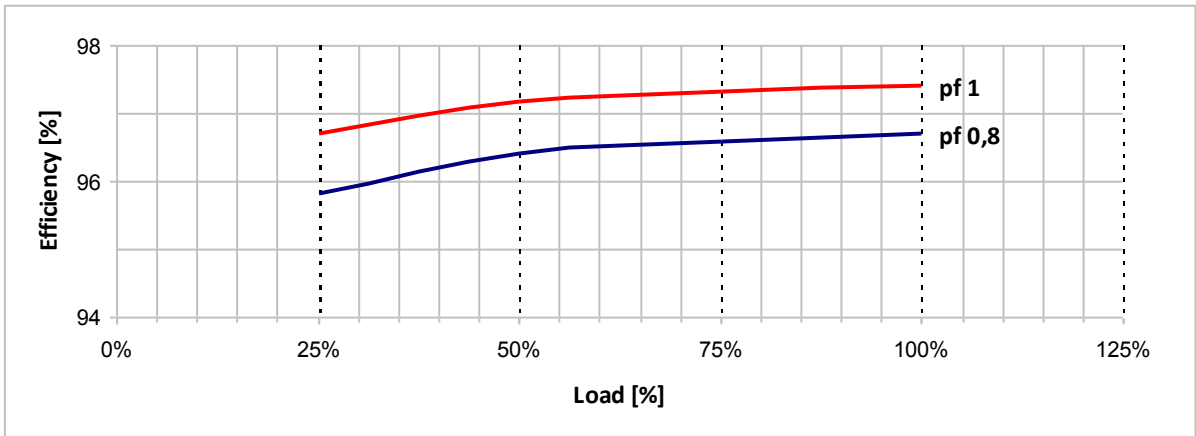


**400 V**

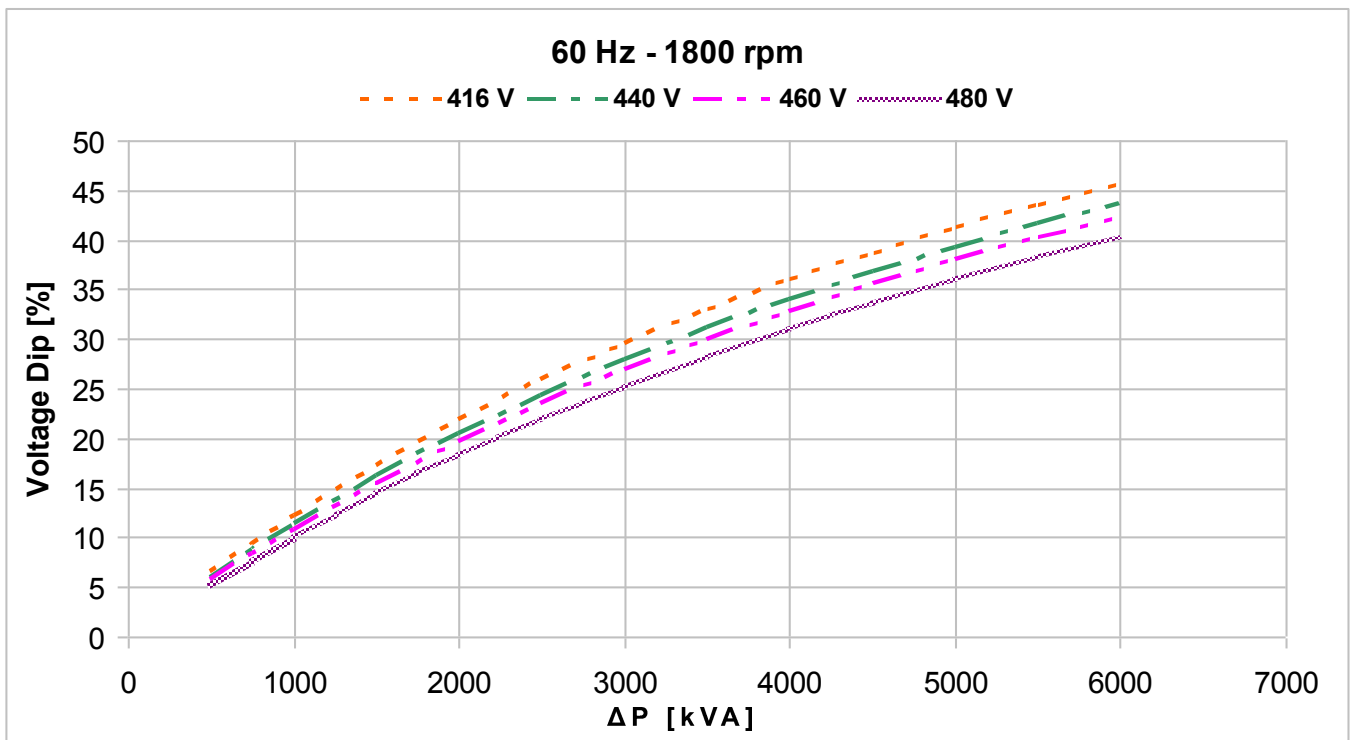
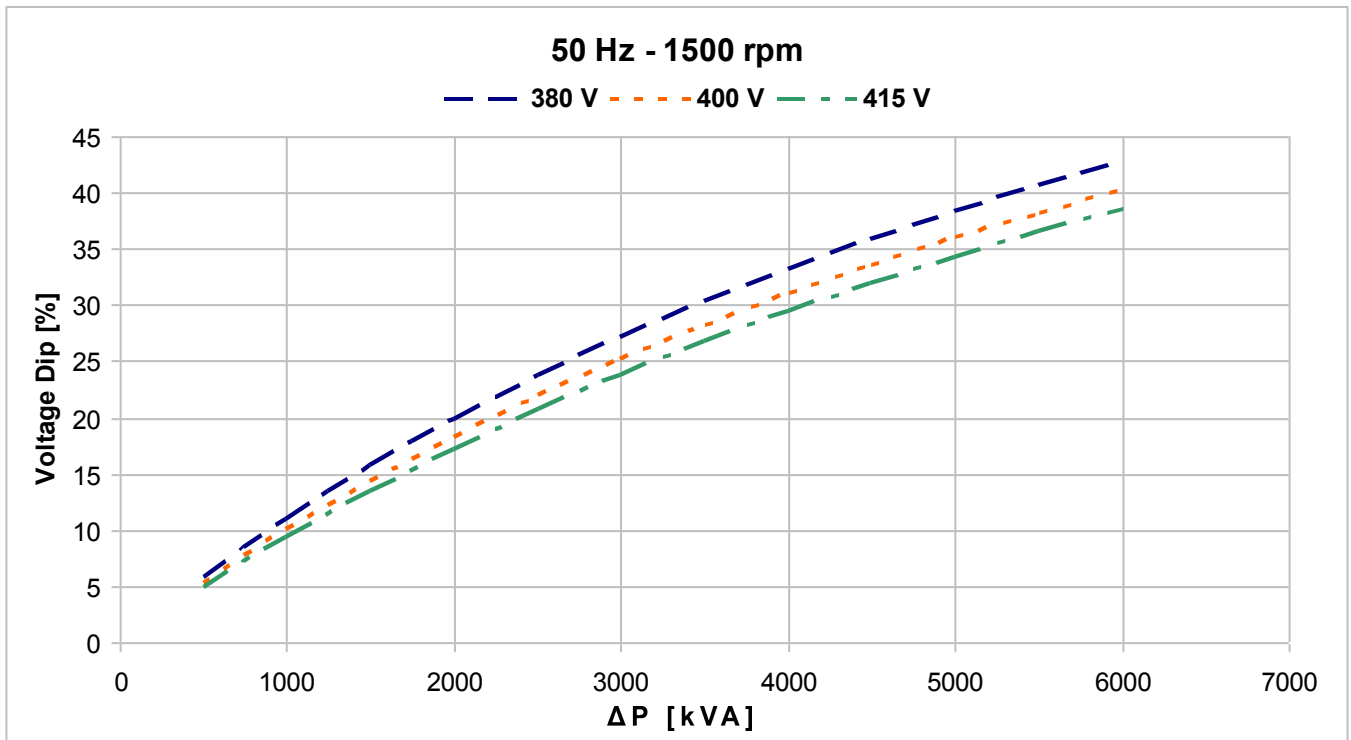


**415 V**



**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.