

**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	1460 1168	1500 1200	1500 1200	1620 1296	1720 1376	1800 1440	1800 1440	
EFFICIENCY [%] @ 0,8 p.f.	4/4	95,7	95,9	96,0	96,0	96,1	96,3	96,3	
	3/4	95,8	96,0	96,0	96,2	96,3	96,4	96,4	
	2/4	95,9	96,1	95,8	96,2	96,3	96,4	96,4	
EFFICIENCY [%] @ 1 p.f.	4/4	96,6	96,8	96,8	96,8	96,9	97,1	97,1	
	3/4	96,7	96,8	96,8	97,0	97,1	97,2	97,2	
	2/4	96,8	96,9	96,7	97,0	97,1	97,2	97,2	
SHORT CIRCUIT RATIO	SCR	0,34	0,37	0,40	0,31	0,33	0,34	0,37	
REACTANCES [%]									
Direct axis synchronous	X <sub>d</sub>	348	323	300	387	367	352	323	
Quadrature axis synchronous	X <sub>q</sub>	194	180	167	216	205	196	180	
Direct axis transient	X' <sub>d</sub>	34,1	31,6	29,4	37,9	35,9	34,4	31,6	
Direct axis subtransient	X'' <sub>d</sub>	16,0	14,8	13,7	17,7	16,8	16,1	14,8	
Quadrature axis subtransient	X'' <sub>q</sub>	16,4	15,2	14,1	18,2	17,3	16,6	15,2	
Negative sequence	X <sub>2</sub>	16,2	15,0	13,9	18,0	17,1	16,3	15,0	
Zero sequence	X <sub>0</sub>	4,4	4,1	3,8	4,9	4,7	4,5	4,1	
TIME CONSTANTS [s]									
Open circuit	T' <sub>do</sub>					3,37			
Transient	T' <sub>d</sub>					0,33			
Subtransient	T'' <sub>d</sub>					0,02			
Armature	T <sub>a</sub>					0,36			

**MECHANICAL CHARACTERISTICS**

D-end bearing/Lubrication	6326 C3 / With grease nipple
N-end bearing/Lubrication	6320 C3 / With grease nipple
Overspeed [r.p.m.]	2250
Inertia (J) [kgm <sup>2</sup> ]	Refer to B34 construction 29
Weight [kg]	Refer to B34 construction 3200
Method of cooling	IC01
Cooling air required [m <sup>3</sup> /s] @ 50/60 Hz	1,50 / 1,80
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	1,6
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**

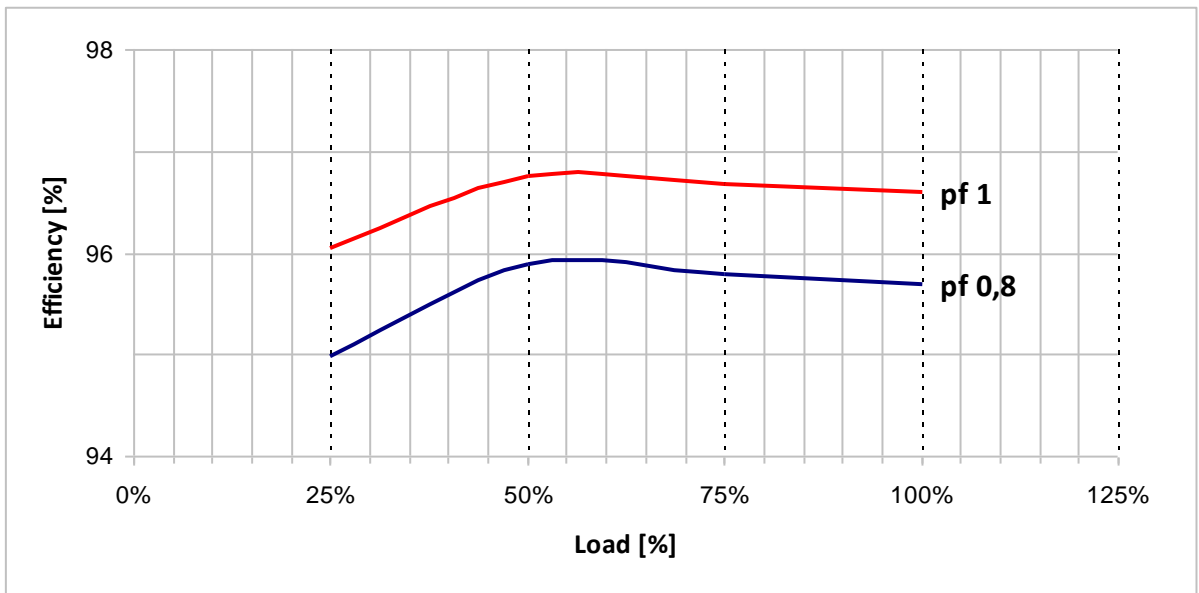
IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

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

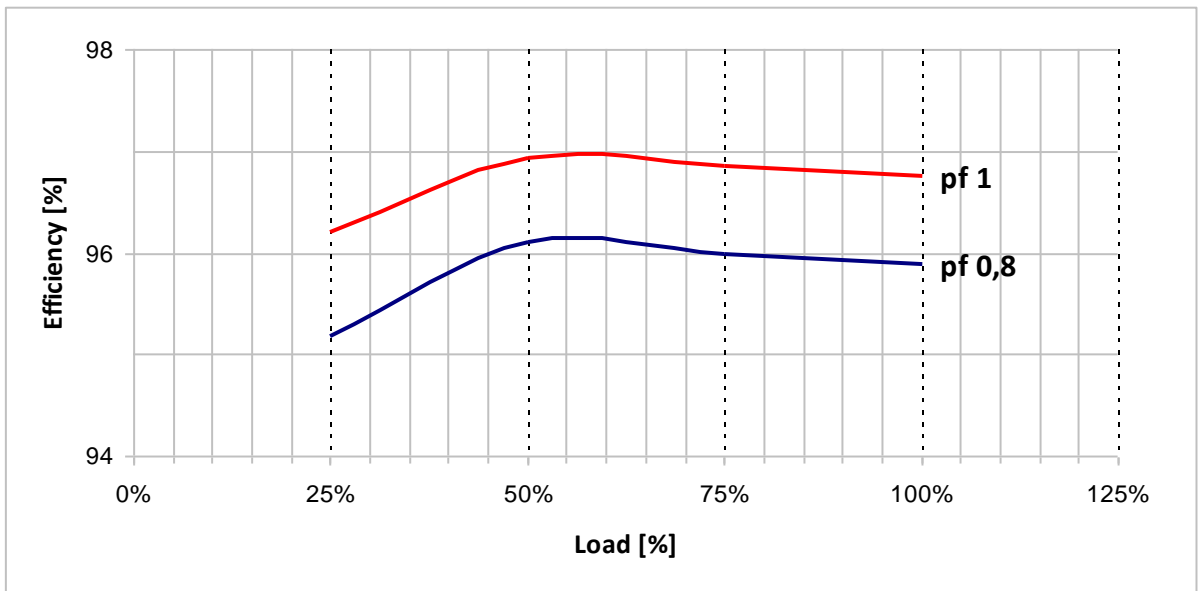
**Typical efficiency curves**

**50 Hz - 1500 rpm**

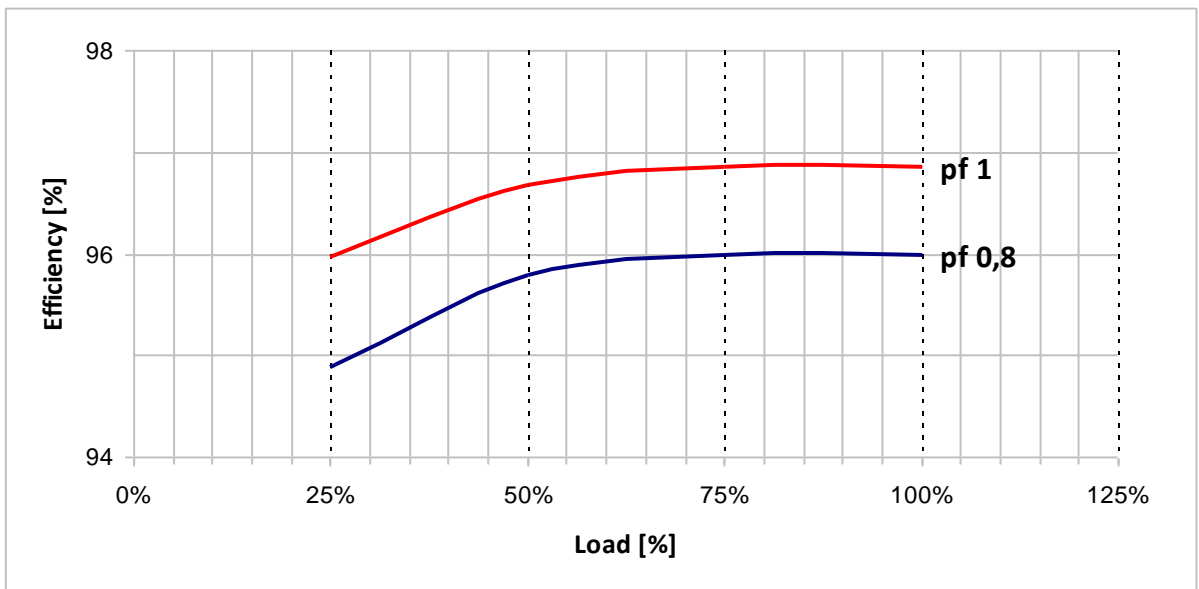
**380 V**

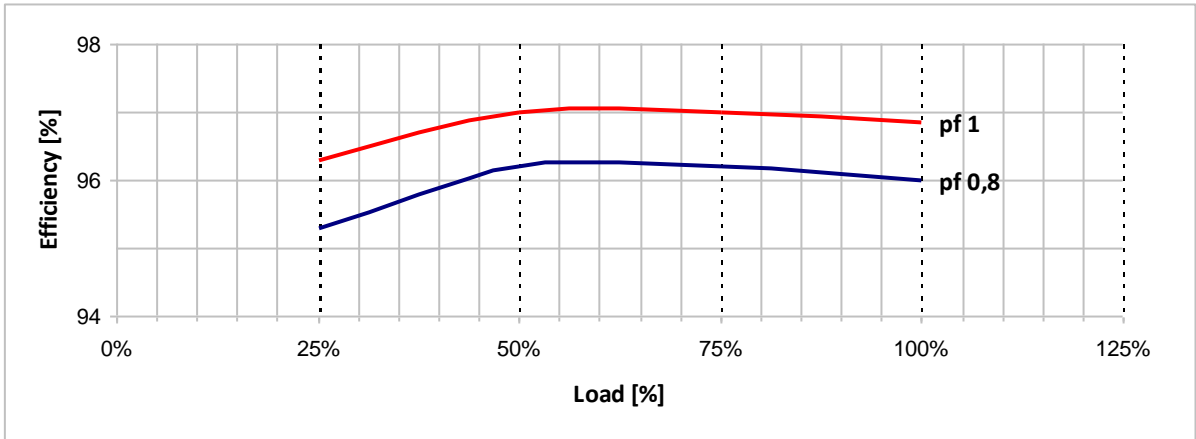
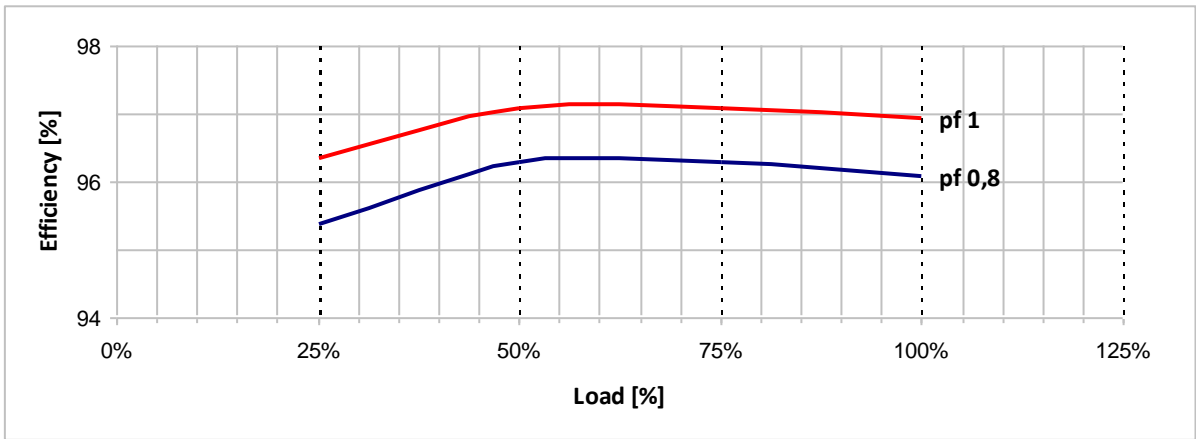
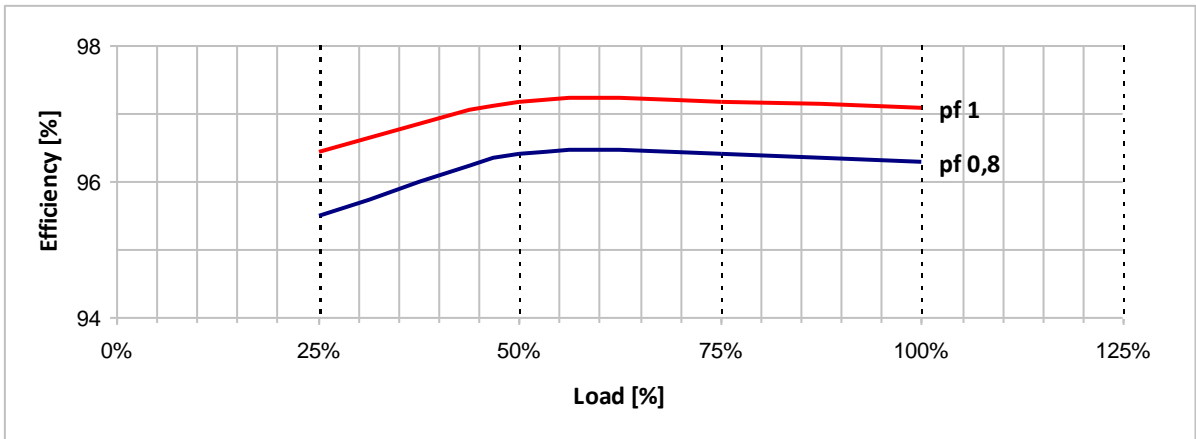
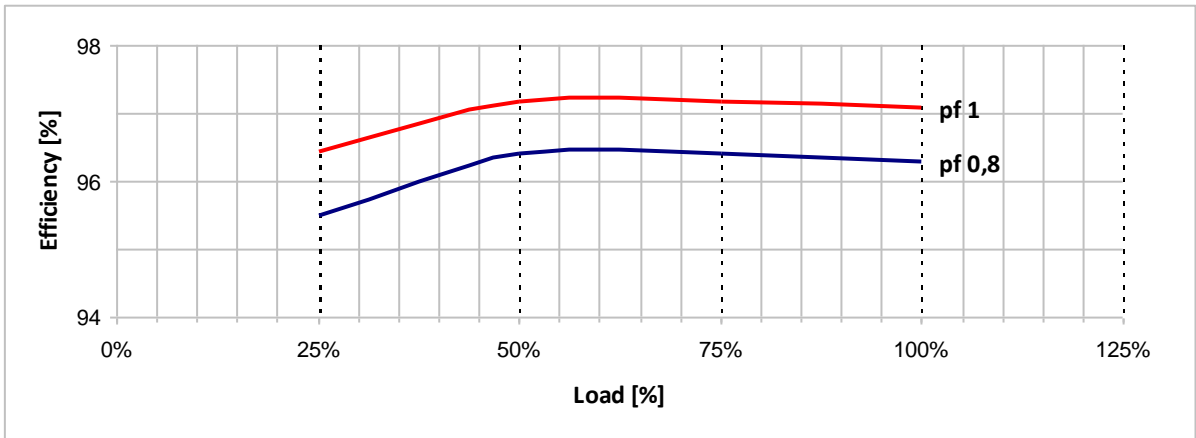


**400 V**

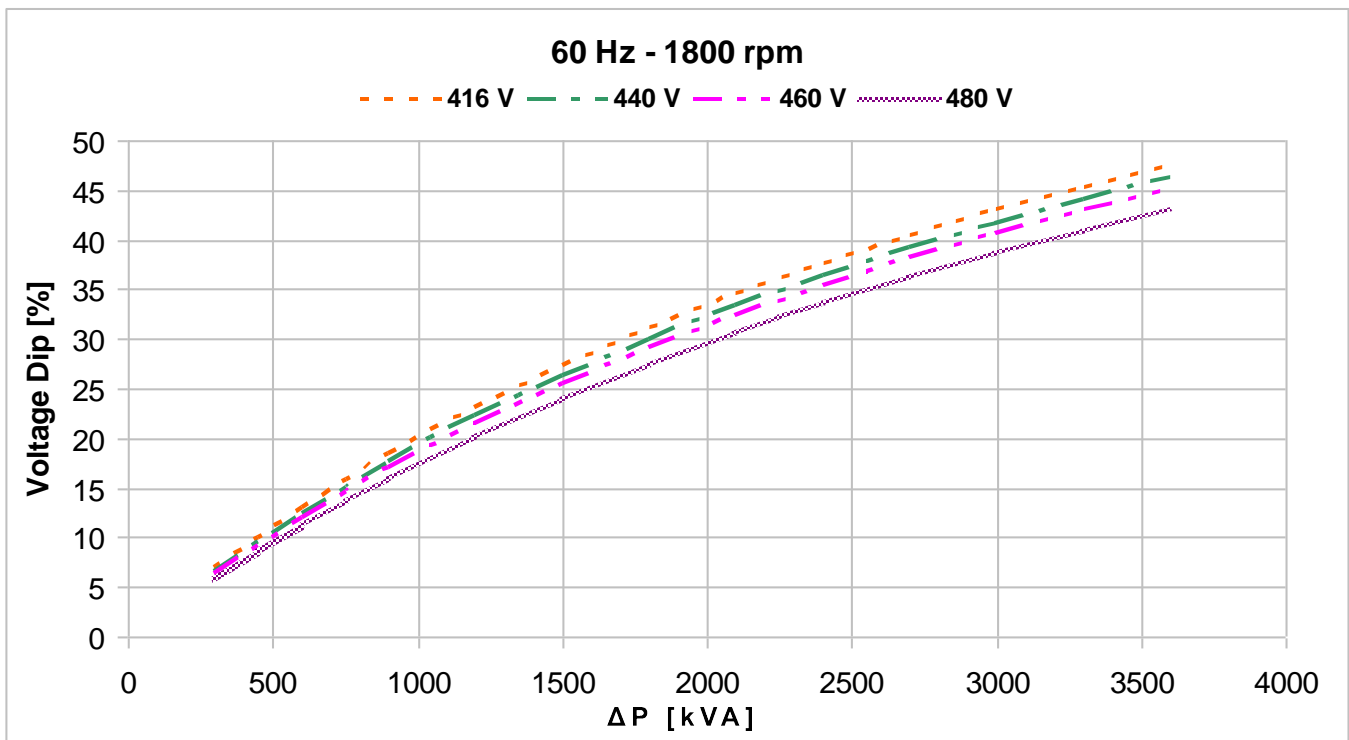
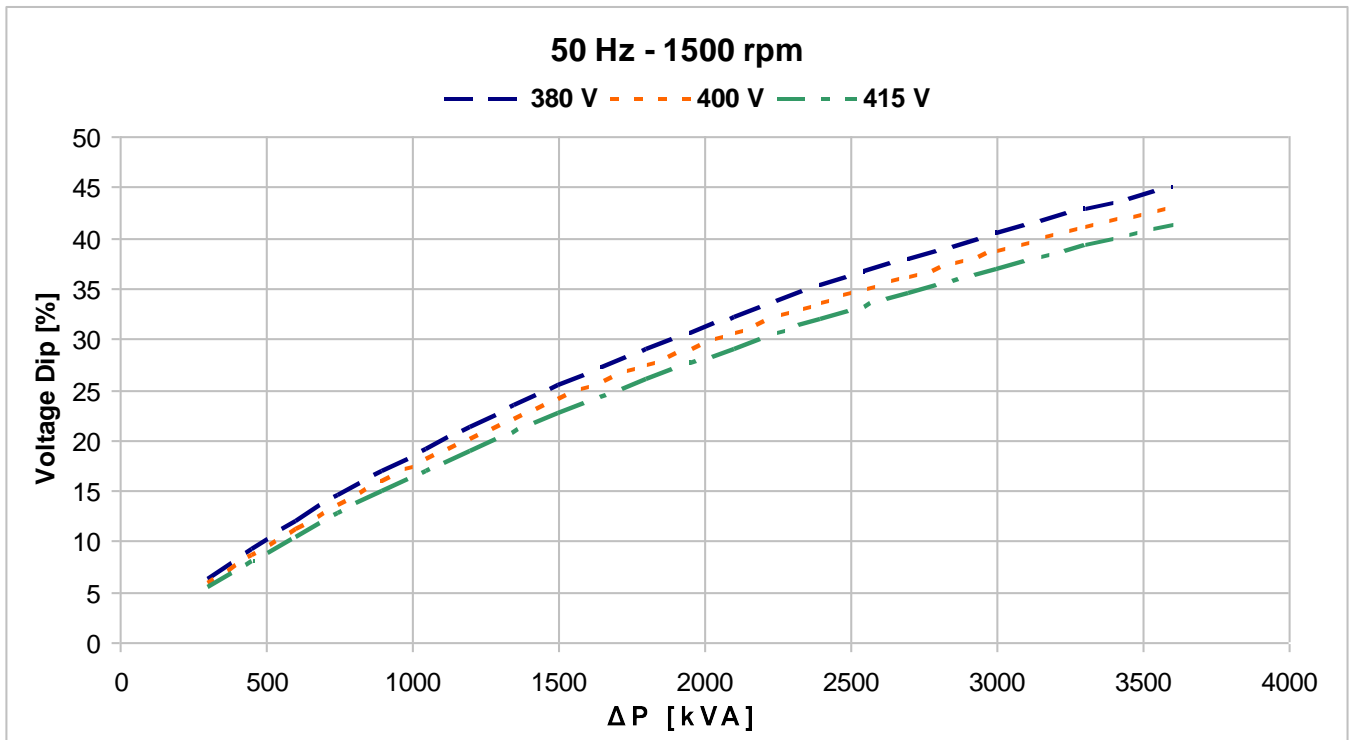


**415 V**



**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.