

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	1970 1576	2000 1600	2000 1600	2220 1776	2280 1824	2330 1864	2400 1920	
EFFICIENCY [%] @ 0,8 p.f.	4/4	96,1	96,1	96,2	96,1	96,3	96,4	96,5	
	3/4	96,4	96,4	96,5	96,1	96,3	96,4	96,5	
	2/4	96,2	96,2	96,3	95,7	95,9	96,0	96,1	
EFFICIENCY [%] @ 1 p.f.	4/4	96,9	96,9	97,0	96,9	97,1	97,2	97,2	
	3/4	97,2	97,2	97,2	96,9	97,1	97,2	97,2	
	2/4	97,0	97,0	97,1	96,6	96,8	96,9	96,9	
SHORT CIRCUIT RATIO	SCR	0,29	0,32	0,34	0,26	0,28	0,30	0,32	
REACTANCES [%]									
Direct axis synchronous	X _d	367	336	312	414	380	355	336	
Quadrature axis synchronous	X _q	205	188	175	232	213	199	188	
Direct axis transient	X' _d	34,1	31,2	29,0	38,4	35,3	33,0	31,2	
Direct axis subtransient	X'' _d	14,0	12,8	11,9	15,8	14,5	13,5	12,8	
Quadrature axis subtransient	X'' _q	14,4	13,2	12,3	16,3	14,9	14,0	13,2	
Negative sequence	X ₂	14,2	13,0	12,1	16,0	14,7	13,7	13,0	
Zero sequence	X ₀	3,3	3,0	2,8	3,7	3,4	3,2	3,0	
TIME CONSTANTS [s]									
Open circuit	T' _{do}	3,73							
Transient	T' _d	0,34							
Subtransient	T'' _d	0,014							
Armature	T _a	0,029							

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 ²]	Refer to B34 construction 46,7
Weight [kg]	Refer to B34 construction 4000
Method of cooling	IC01
Cooling air required [m ³ /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	0,85
Overloads	10% for 1 hour every 12 hours
3-phase short circuit sustained current	≥ 300 % (3 I _n) with VARICOMP device
Voltage regulation accuracy	± 0,5 % I _n steady state condition
Radio interference	EN 55011 - Class B Group 1
Wave form THF	< 5%
Total harmonic content	< 5% - At no load

STANDARDS

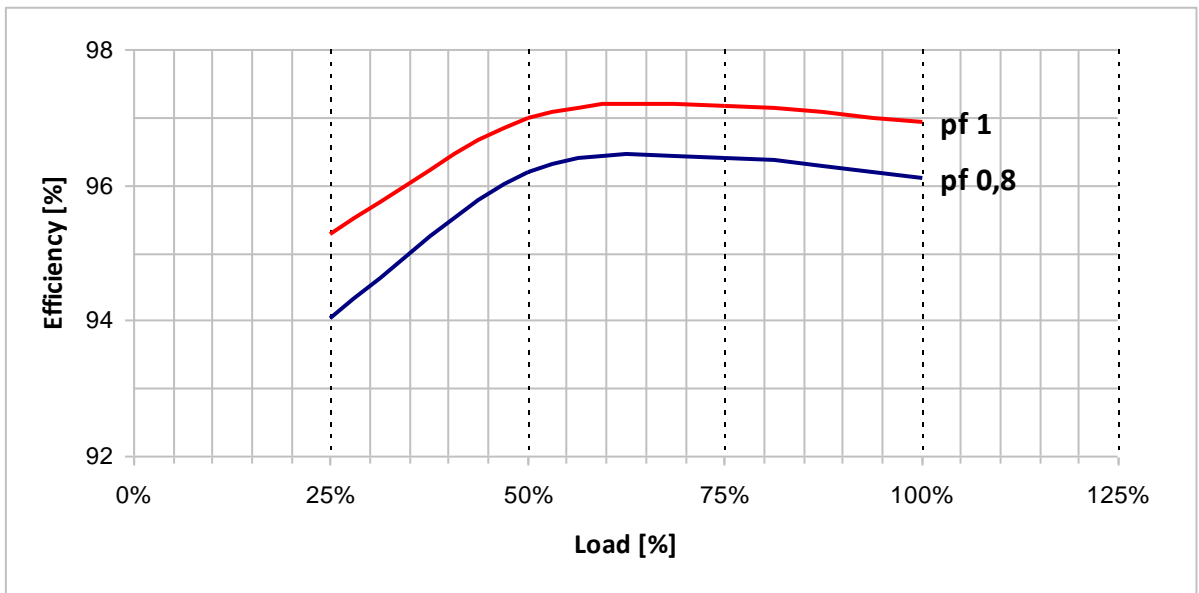
IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

Typical efficiency curves
50 Hz - 1500 rpm

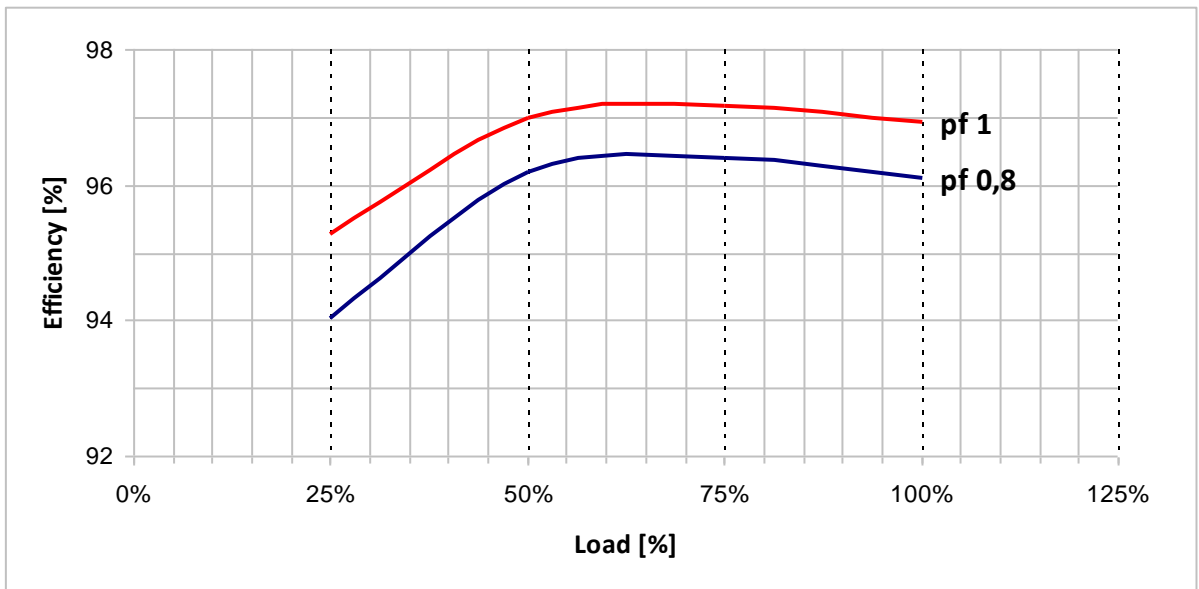
Typical efficiency curves

50 Hz - 1500 rpm

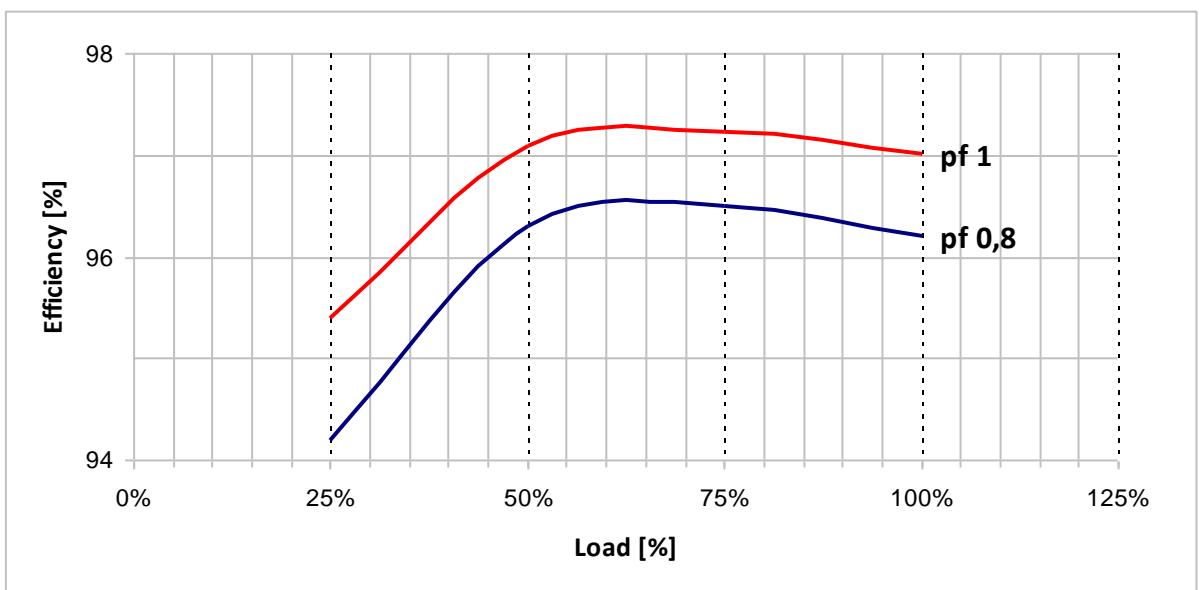
380 V

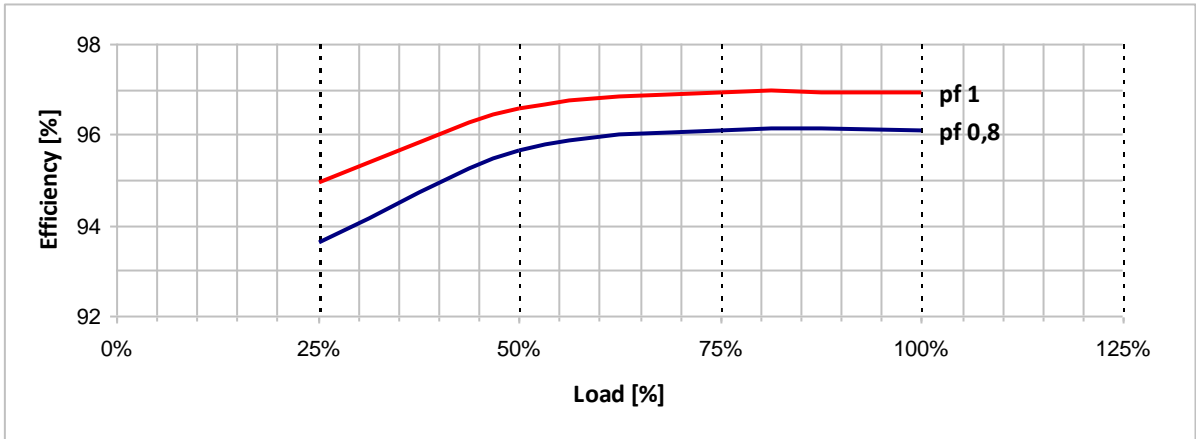
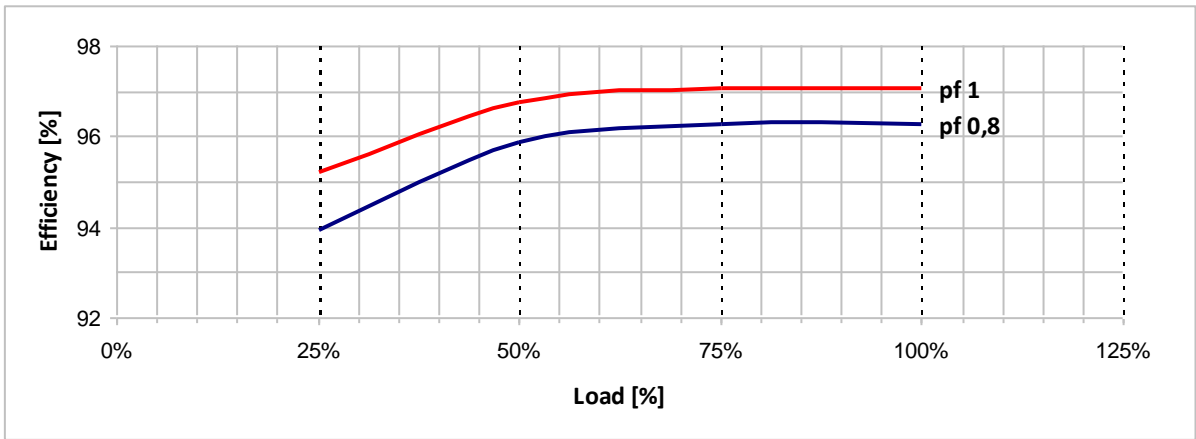
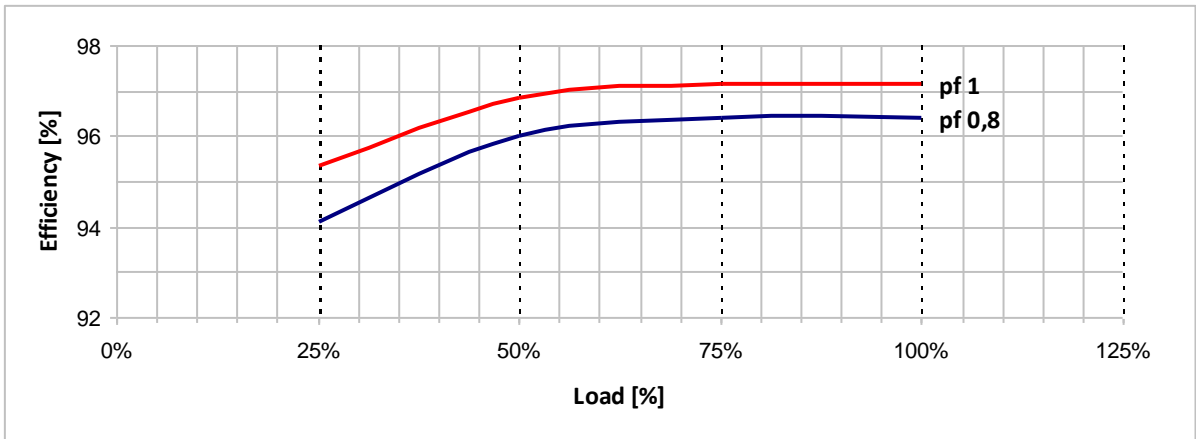
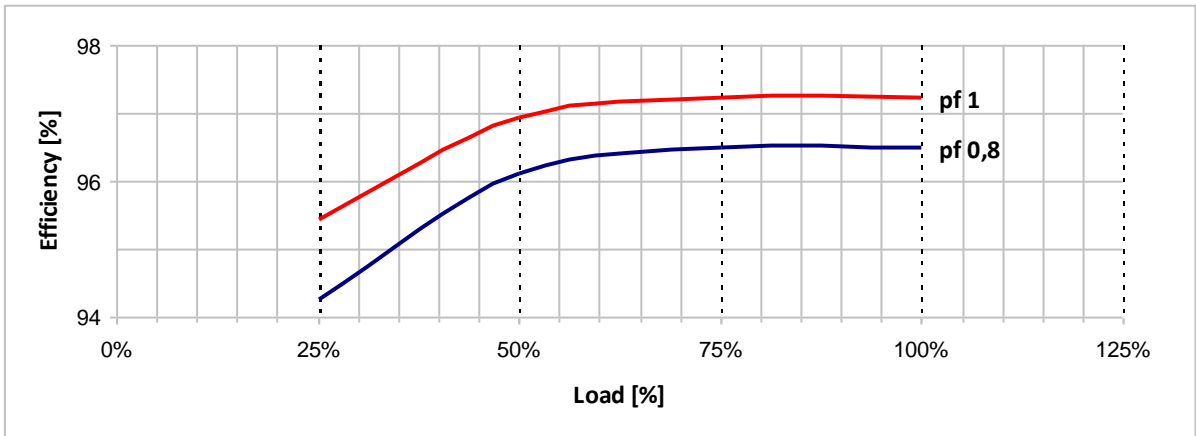


400 V

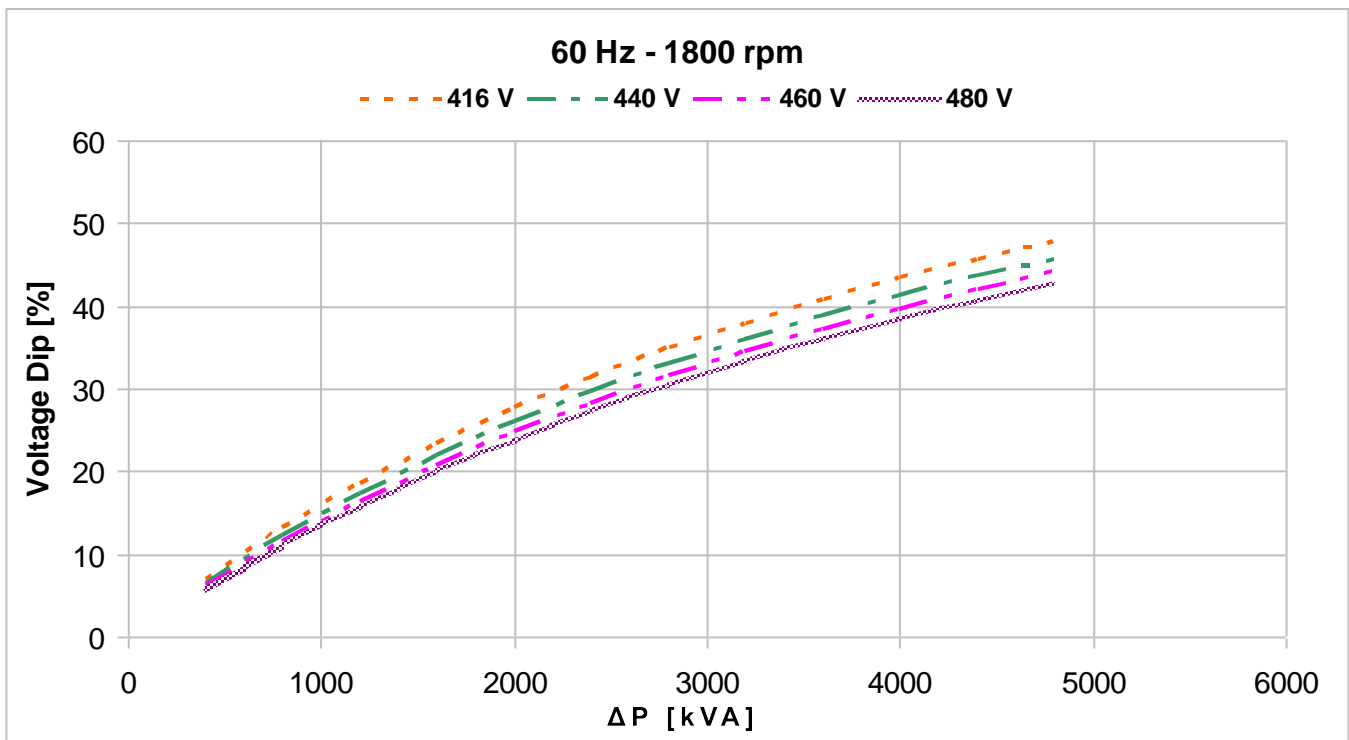
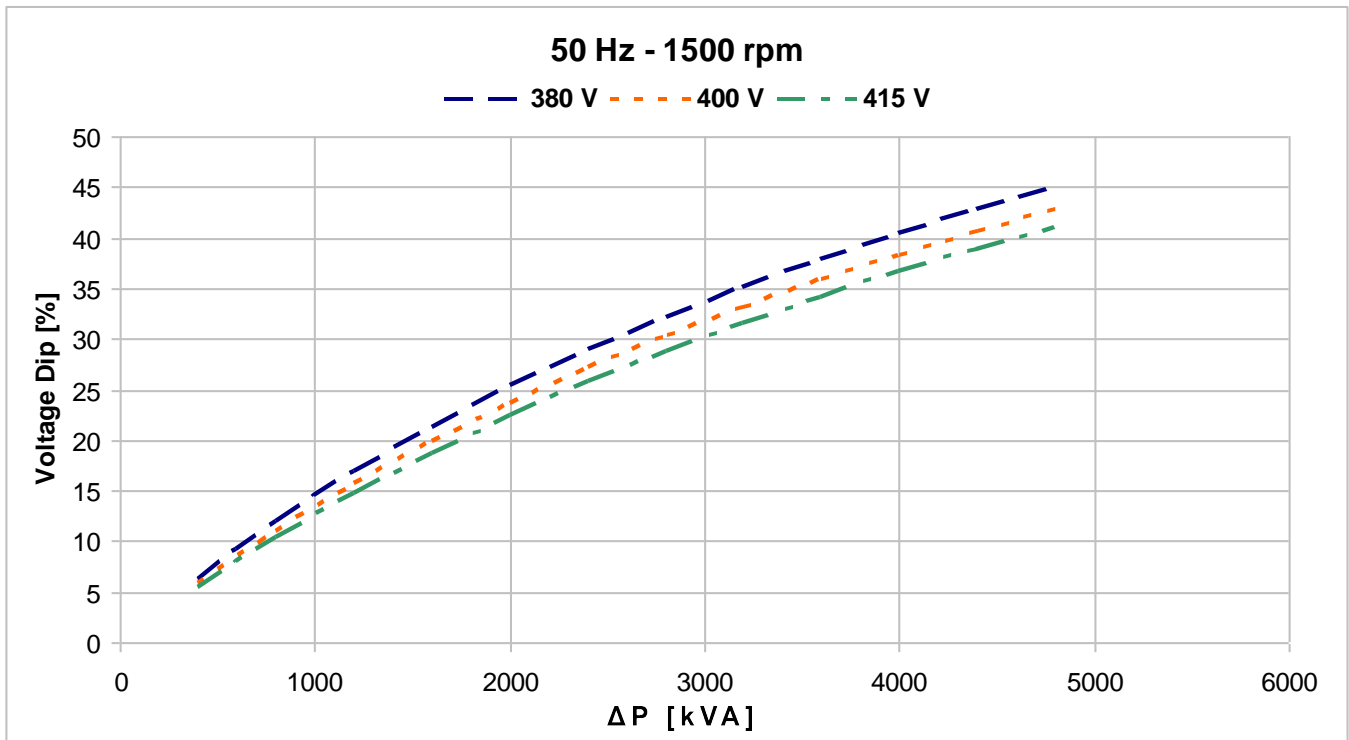


415 V



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.