

MODEL**FG26A230****WINDING****R1**

REF: FG26A230R1-0 JAN 2019

WINDING DETAILS

Code	R1	Insulation class	H
Phase	3	Leads	12
Pole number	4	Pitch	2/3

MECHANICAL DETAILS

Standard protection	IP21
Overspeed	rpm 2250
Air flow 50Hz/60Hz	m ³ /s 0.25/0.30

EXCITATION DETAILS

Excitation system	SHUNT	PMG
AVR model	GRT7-TH4E	IVR
Sustained short-circuit current	-	300:10s
Steady state voltage regulation	+/- 0.5 %	+/- 0.25 %

WAVEFORM

<i>Line voltage on no load or balanced linear rated load</i>	
Total harmonic content THC	< 3 %
Telephone influence factor TIF (NEMA)	< 50 %
Telephone harmonic factor THF (IEC)	< 2 %

LINE VOLTAGE

Frequency / speed	V	50Hz / 1500rpm			60Hz / 1800rpm				
		380	400	415	380	416	440	460	480
Series star	V	380	400	415	380	416	440	460	480
Series delta	V	220	230	240	220	240	254	266	277
Parallel star	V	190	200	208	190	208	220	230	240

RATING

Power factor 0.8, Altitude <=1000m

Class	Rating	kVA	274	288	288	275	296	310	325	338
Class H rise BR	125/40	kVA	274	288	288	275	296	310	325	338
		kW	219	230	230	220	237	248	260	270
Class H rise PR	150/40	kVA	301	317	317	289	311	325	341	354
		kW	241	253	253	231	249	260	273	283
Class H rise PR	163/27	kVA	315	331	331	303	325	341	358	371
		kW	252	265	265	242	260	273	286	297
Class F rise BR	105/40	kVA	247	259	259	248	266	279	293	304
		kW	197	207	207	198	213	223	234	243

EFFICIENCIES

Power factor 0.8

Efficiency	Class	%	91.2	91.4	93.2	92.2	92.7	93.0	93.2	93.5
110%	Class H BR	%	91.2	91.4	93.2	92.2	92.7	93.0	93.2	93.5
100%	Class H BR	%	92.0	92.2	93.7	92.8	93.3	93.5	93.7	93.8
75%	Class H BR	%	92.9	93.0	94.5	93.8	94.2	94.4	94.6	94.7
50%	Class H BR	%	93.1	93.1	94.3	93.8	94.1	94.2	94.4	94.5
25%	Class H BR	%	90.7	90.5	92.6	92.2	92.3	92.4	92.5	92.6

CHARACTERISTIC PARAMETERS

Reactance base class H BR rating

K _{cc}	Short-circuit ratio		0.27	0.30	0.34	0.21	0.24	0.26	0.28	0.31
X _d	D-Axis synchronous reactance (unsaturated)	pu	4.34	4.11	3.82	5.23	4.70	4.39	4.22	4.02
X' _d	D-Axis transient reactance (saturated)	pu	0.12	0.11	0.11	0.15	0.13	0.12	0.12	0.11
X'' _d	D-Axis sub-transient reactance (saturated)	pu	0.116	0.110	0.103	0.140	0.126	0.118	0.113	0.108
X _q	Q-Axis synchronous reactance (unsaturated)	pu	1.94	1.84	1.71	2.34	2.10	1.97	1.89	1.80
X'' _q	Q-Axis sub-transient reactance (saturated)	pu	0.198	0.188	0.175	0.239	0.215	0.201	0.193	0.184
X ₂	Negative-sequence reactance (saturated)	pu	0.160	0.150	0.140	0.190	0.170	0.160	0.150	0.150
X ₀	Zero-sequence reactance (independent)	pu	0.007	0.007	0.007	0.009	0.008	0.008	0.007	0.007
T' _d	D-Axis transient time constant	ms		49				49		
T'' _d	D-Axis sub-transient time constant	ms		2				2		
T' _{do}	D-Axis open-circuit time constant	ms		1766				1766		
T _a	Armature time constant	ms		14				14		

EXCITATION VOLTAGE AND CURRENT

No load excitation voltage	V	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
No load excitation current	A	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Class H BR excitation voltage	V	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
Class H BR excitation current	A	3.60	3.60	3.60	3.60	3.60	3.60	3.60	3.60

WINDING RESISTANCE

At 20° C

Stator line-to-line (Series Star)	Ω	0.025		Exciter field	Ω	8.57
Main field	Ω	0.83				

According to: IEC 60034-1 & 22, BS 4999/5000, NEMA MG 1-33

Values quoted are typical. In line with our policy of continuous improvement, we reserve the right to change specification without notice.

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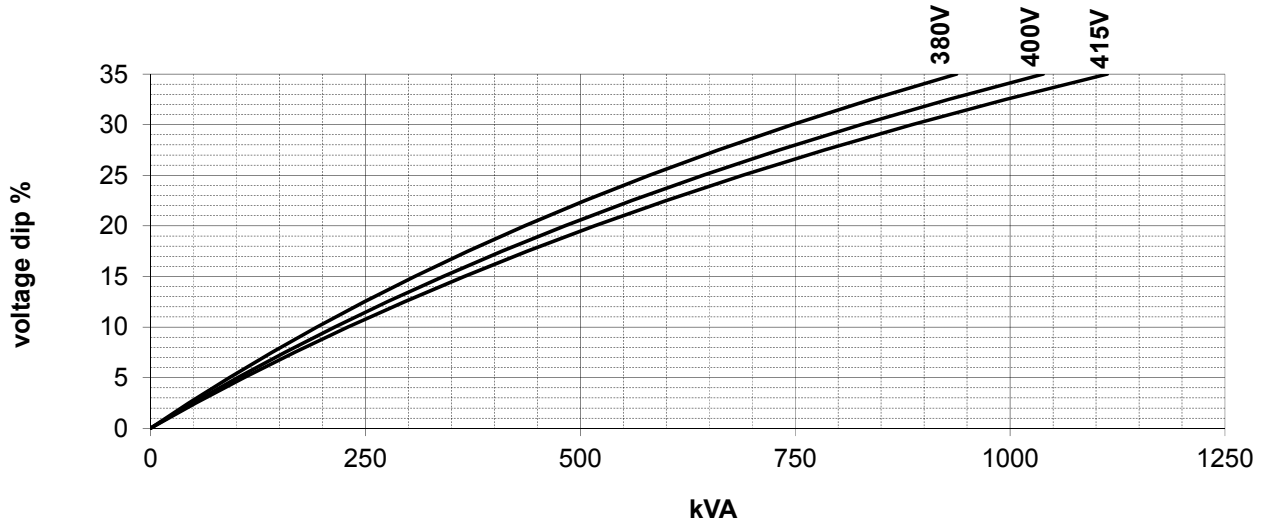


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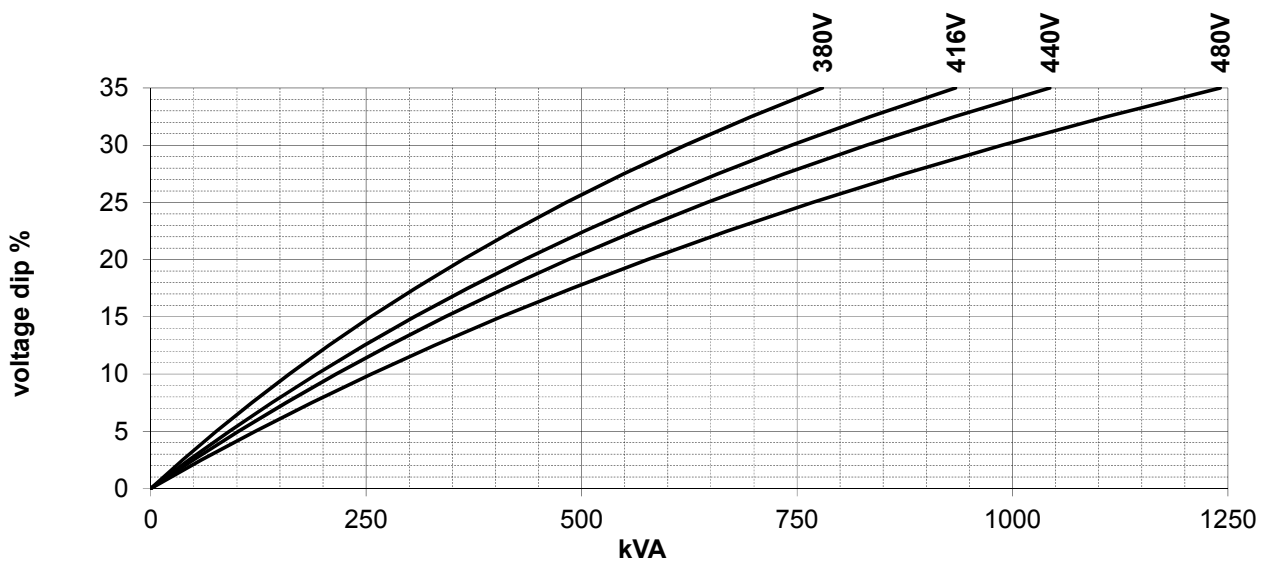
LOCKED ROTOR MOTOR STARTING CURVES

Power factor 0.6

50 Hz



60 Hz

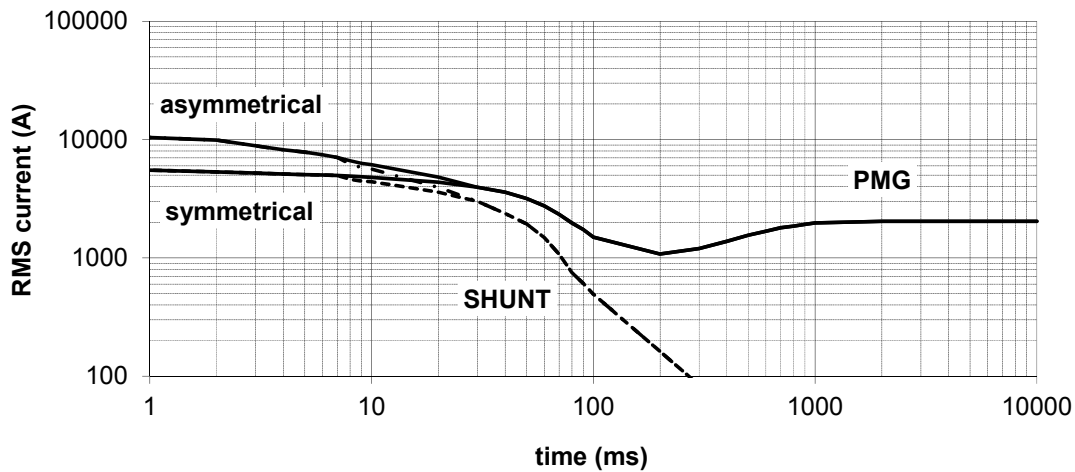


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THREE PHASE - SHORT CIRCUIT DECREMENT CURVES*No-load excitation at rated speed***400V 50Hz, 480V 60Hz***Series Star***Multiplication Factors****50Hz Voltages**

380 400 415

Multiplication Factor

0.95 1.00 1.04

*Apply factor up to 2xT'd, remainder of curve unchanged***60Hz Voltages**

380 416 440 460 480

Multiplication Factor

0.79 0.87 0.92 0.96 1.00

*Apply factor up to 2xT'd, remainder of curve unchanged***Winding Connection****Series Star****Parallel Star****Series Delta**

Multiplication Factor

1.00

2.00

1.73

Apply factor to the complete curve

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