

Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS



Motor type: 0AV3090A

SIMOTICS FL - 90 S - IM B3 - 2p

Client order no.	Item-No.	Offer no.
Order no.	Consignment no.	Project
Remarks		

Electrical data

Safe area

U	Δ / Y	f	P	P	I	n	M	η			cos φ			I _A /I _N	M _A /M _N	M _K /M _N	IE-CL
[V]		[Hz]	[kW]	[hp]	[A]	[1/min]	[Nm]	4/4	3/4	2/4	4/4	3/4	2/4	I _I /I _N	T _I /T _N	T _B /T _N	
230	Δ	50	1.5	-	5.2	2900	4.9	84.2	84.8	82.3	0.86	-	-	6.5	2	3.4	IE3
400	Y	50	1.5	-	3.00	2900	4.9	84.2	84.8	82.3	0.86	-	-	6.5	2	3.4	IE3
IM B3			FS 90 S		IP 55		IEC/EN 60034		IEC, DIN, ISO, VDE, EN								

Environmental conditions : -20°C - +40°C / 1000 m

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	58 / 70 dB(A)	- / -	Vibration severity grade	A
Moment of inertia	0.002764 kg m2		Insulation	155(F) to 130(B)
Bearing DE NDE	6205 2Z C3	6205 2Z C3	Duty type	S1
bearing lifetime			Direction of rotation	bidirectional
L _{10mh} , F _{Rad min} for coupling operation 50 60Hz	20000 h	-	Frame material	aluminum
Lubricants	Unirex N3		Net weight of the motor (IM B3)	18 kg
Regreasing device	no		Coating (paint finish)	Standard paint finish C2
Grease nipple			Color, paint shade	RAL7030
Type of bearing	floated bearing DE and NDE		Motor protection	(A) without (Standard)
Condensate drainage holes	no		Method of cooling	IC411 - self ventilated, surface cooled
External earthing terminal	no			

Terminal box

Terminal box position	top	Cable diameter from ... to ...	13 mm - 18 mm
Material of terminal box	aluminum	Cable entry	M25 x 1.5 + M16 x 1.5
Type of terminal box	-	Cable gland	2 glands
Contact-screw thread	M4		
Max. cross-sectional area	1,5 mm2		

Special design

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responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.			
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Efficiency documentation for 50/60Hz three-phase Squirrel-Cage-Motors SIMOTICS

MLFB: 1LE0323-0EA02-2AA4

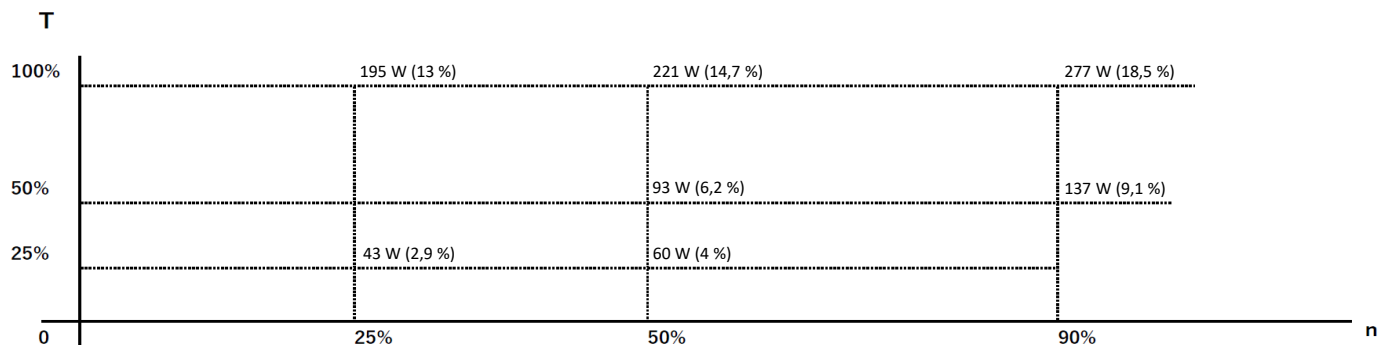
Motortype: 0AV3090A

motor rating						
U _N [V]	Δ / Y	f _N [Hz]	P _N [kW]	I _N [A]	n _N [1/min]	T _N [Nm]
400	Y	50	1.5	3	2900	4.9

Power losses acc. to COMMISSION REGULATION (EU) 2019/1781

operating point (n:T)	losses P _L [W]	relative losses P _L /P _N [%]
P ₁ (90:100)	277	18.5
P ₂ (50:100)	221	14.7
P ₃ (25:100)	195	13
P ₄ (90:50)	137	9.1
P ₅ (50:50)	93	6.2
P ₆ (50:25)	60	4
P ₇ (25:25)	43	2.9


Map of losses - relative losses P_L/P_N [%]



Notes / Definitions

T as relative T: T/T_N [%]

n as relative n: n/n_N [%]

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