

THREE-PHASE-ASYNCHRONOUS-MOTOR FWM 160 M 4 /SPE

IE4OM16M4004

General data

Type of motor	3~
Type designation	FWM
Frame size	160
Mounting	B5
Frame execution	M
Frame material	Grauguß
Insulationclass	F/B
Terminal box location	top DE
Terminal box orientation	cable gland to the right side
Weight (kg)	149
Rotation Direction	right /left
Vibration level	A
Balancing method	half key
cooling type	IC411
Executed acc. to	IEC 60034-1
noise level	IEC 60034-9

Influential factors

Duty	S1
Ambient temperature (°C)	-20 up to +40
Height of location (m)	1000

Electrical specification

Power 1 50Hz (kW)	11
Power 1 60Hz (kW)	11
Frequency (Hz)	50/60
Voltage 50Hz (V)	500
Voltage 60Hz (V)	575
Voltage/Frequency tolerance (not valid for range voltage)	+/-10%
Connection	Δ
Poles	4
Efficiency 100% 50Hz (%)	93,3
Efficiency 75% 50Hz (%)	93,4
Efficiency 50% 50Hz (%)	90,5
Efficiency 100% 60Hz (%)	93,6
Power factor	0,83
Starting current factor	10
Starting torque factor	2
Tilting moment factor	2,3
Rated current 50Hz (A)	16,40
Rated current 60Hz (A)	14,22
Eff.Cl.50Hz	IE4
Eff.Cl.60Hz	IE4

Mechanical data

Torque (Nm)	71,71/59,76
Rotation speed (1/min)	1465/1758
Bearing DE	6309.ZZ.C3
Bearing NDE	6309.ZZ.C3
Mounting of bearing DE	fixed bearing
Mounting of bearing NDE	loose bearing
Bearing lifetime	20000
allow. Radial load (X/2)	2630
allow. Radial load (X0)	3000
allow. Radial load (Xmax)	2330
allow. Axial load B3,B5,B35,B14,B34	2100
allow. Axial load V1,V3,V19,V18	1720
Moment of inertia	0,1109

Motor properties

Color	RAL7030
Paint surface	shiny
Protection class	IP55
Cable gland size (cable connection)	2xM40x1,5
Cable gland size (option)	M20x1,5
Cable gland type	Standard
Shaft end	42 x 110
Shaft material	C45
Specification NDE	Plastic fan

Additional operating points

Voltage operating point 2	575
Power operating point 2 (kW)	13.2
Connection operating point 2	Δ/Y
Frequency operating point 2	60
Efficiency class operating point 2	IE3

Additional option

Protection winding	PTC 150°C
Condensate draining hole	✓
Condensate draining hole sealing screw	✓
Oil sealed	✓

ac motoren

ac motoren