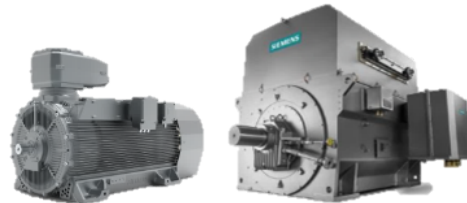


Data sheet for three-phase squirrel cage motor SIMOTICS HV Series H-compact



Article number 1LA4316-4AN70-Z
Options A40+A65+B22+D00+D76+G50+K09+K98+M13+M52+T96+Y53

Client order no.

Order no.

Offer no.

Remarks

Item no.

Consignment no.

Project

General data

Standards/specifications	IEC 60034
Usage area	Safe Area
Type of explosion protection	without

Electrical data

Rated power P_N	365 kW			
Rated voltage U_N	6.6 kV			
Voltage fluctuations	± 5 % (IEC 60034-1, Area A)			
Frequency f_N	50 Hz			
Frequency fluctuations	± 2% (IEC 60034-1, Area A)			
Stator circuit	Star			
Rated current I_N	39.5 A			
Number of poles	4			
Rated speed n_N	1481 1/min			
Rated torque M_N	2354 Nm			
Partial load P/P_N	5/4	4/4	3/4	2/4
Efficiency η %	94.6	95.2	95.5	95.3
Power factor $\cos \varphi$	0.85	0.85	0.82	0.74

Mains operation (DOL)

Mode of operation	Continuous operation (S1)
Thermal class 155 (F), utilization to thermal class 130 (B)	
Starting / rated current I_A/I_N	5.5
Tolerance I_A/I_N	+ 20% (IEC 60034)
Starting / rated torque M_A/M_N	1.25
Breakdown / rated torque M_K/M_N	2.4
Moment of inertia J	4.8 kg.m ²
Safe stall time hot / cold	17.0 s / 29.0 s
Perm. no. of consecutive starts, cold/warm *	3 / 2

*at max. external moment of inertia 297 kg.m²

* $U / U_N \geq 90 \%$, $M_{Last} \sim n^2$, $M_{Last} / M_N \leq 90.0 \%$

Environmental conditions

Coolant temperature	40 °C
Ambient temperature	-20 °C ... 40 °C
Installation altitude	1000 m

Mechanical data

Type of construction	IM B3 (IM 1001)
Degree of protection	IP55
Shaft height	315
Method of cooling	IC 411
Type of insulation	MICALASTIC - VPI
Rotor winding material	Aluminium
Bearing design	rolling-contact bearing
Bearing cooling	without
Bearing DE	6220 C3
Bearing NDE	6218 C3
Vibration severity grade, acc. IEC 60034-14	Vibration severity grade A
Direction of rotation	Anticlockwise rotation
Sound pressure level L_{pA} (1m), Tolerance +3dB	
- no-load	75 dB(A)
- load	77 dB(A)
Measuring surface level L_s	15 dB(A)
Coating (paint finish)	Standard paint finish in non-standard color
Color, paint shade	see options
Total weight #	2050 kg
Rotor weight	420 kg
Dynamic foundation load at 2- pole terminal short circuit	
downward / upward	43 kN / 23 kN

Type of terminal box

Type of terminal box	1XA8 711
Terminal box, Star connection	without

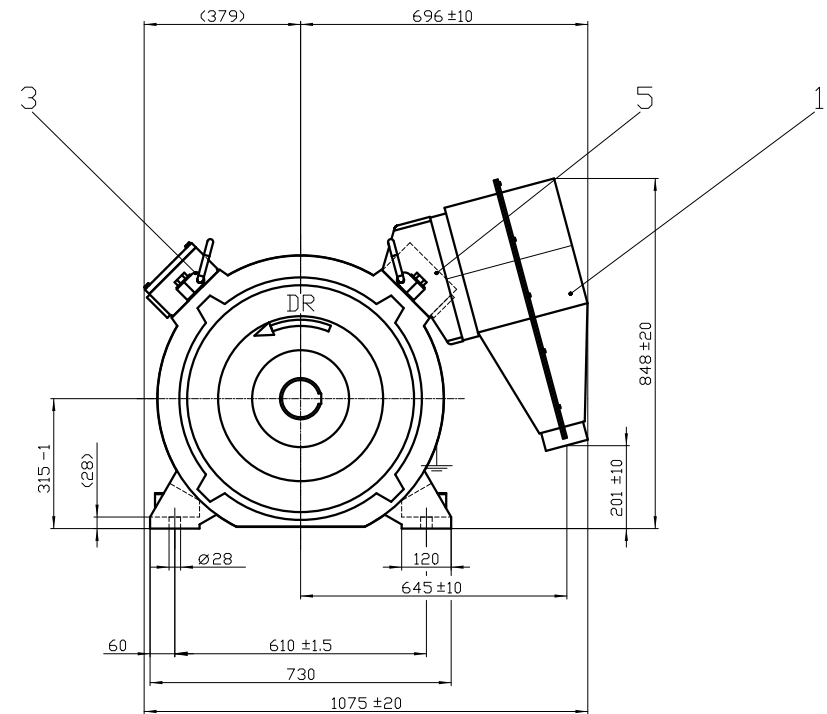
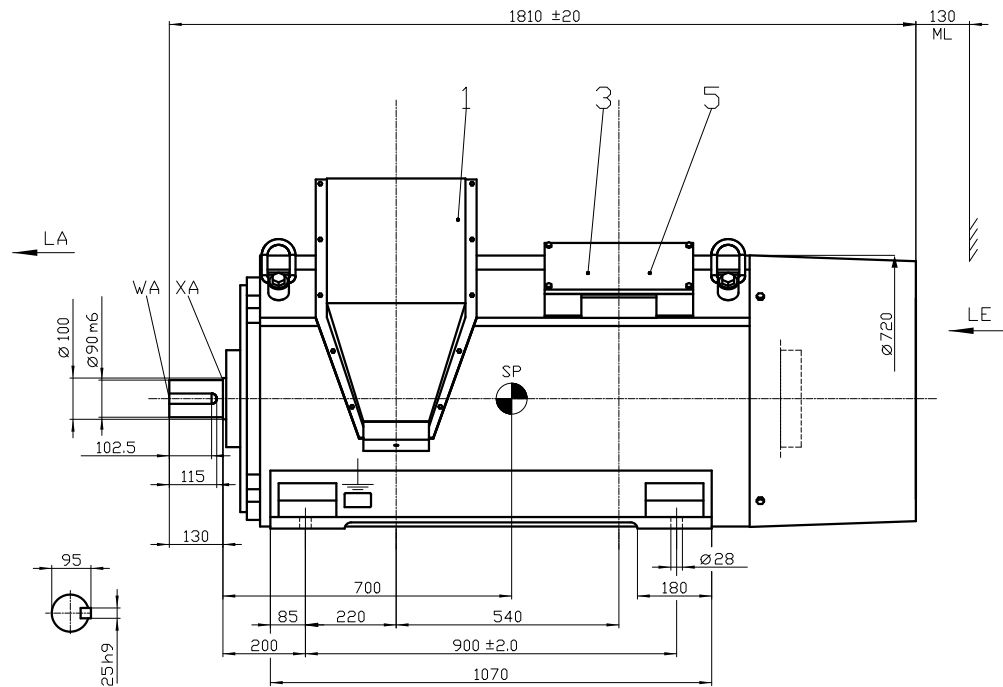
Factory location

Factory location	Germany
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These values apply to catalog design with standard environmental conditions.

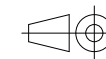
Special design

A40	2 resistance thermometers PT 100 for 2-, 3- or 4-wire connection from terminal box for anti-friction bearings
A65	6 embedded resistance thermometers Pt 100 without lightning arresters for 3- or 4-wire connection from terminals
B22	Motor documentation via download "Docu-Portal"
D00	Documentation in German
D76	Documentation in English
G50	Shock pulse measurement (SPM), measuring nipple at D.E. and N.D.E.
K09	Terminal box on right-hand side, view from D.E.
K98	Counter-clockwise rotation
M13	Anti-condensation heating 220-240V (min. 198V, max. 264V)
M52	Separate auxiliary terminal box for anti-condensation heating
T96	Manufacturing location Germany
Y53	Standard coating in non-standard color, color: RAL5009



- WA / WB Shaft extension acc. to / Wellenende nach DIN 748
with tapped centre hole acc. to / mit Zentrierbohrung nach DIN 332
- XA / XB Relief groove acc. to / Freistich nach DIN 509
- Pos. 1 Terminal box 1 for stator system connection / Klemmenkasten 1 fuer Staenderanschluss
- Pos. 2 Terminal box 2 for star point connection / Klemmenkasten 2 fuer Sternpunktanschluss (optional)
- Pos. 3 Terminal box 1 for auxiliary circuits / Klemmenkasten 1 fuer Hilfsstromkreise (optional)
- Pos. 4 iQ ready SIMOTICS Connect 600 / vorbereitet fuer SIMOTICS Connect 600 (optional)
- Pos. 5 Terminal box 3 for auxiliary circuits / Klemmenkasten 3 fuer Hilfsstromkreise (optional)
- Pos. 7 Terminal box 4 for auxiliary circuits / Klemmenkasten 4 fuer Hilfsstromkreise (optional)
- SP Center of gravity / Schwerpunkt
- DR Direction of rotation / Drehrichtung
- ML Minimum distance for air in / Mindestmass fuer Lufteintritt
- LE Air inlet / Lufteintritt
- LA Air outlet / Luftaustritt

Alle Bemessungswerte sind in Millimeter (mm) angegeben.
All dimensions are in millimeters (mm).



SIEMENS

1LA4316-4AN70-Z

Format / Size: DIN A2 | Massstab / Scale: w/o

A40+A65+B22+D00+D76+G50+K09+K98+M13+M52+T96+Y53