SIEMENS

Datasheet for ArgoDrive

Figure similar

Article No. : 2AG5313-1AB21-0AA0

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Performance data	
Version	Heavy
Wheel diameter	145 mm
Max. load capacity per wheel	500 kg
Overall length	250 mm
Construction width	170 mm
Construction height	205 mm
Ground clearance to the gearbox	128 mm
Ground clearance to the brake disc	14 mm
Nominal speed	1.5 m/s
Acceleration (fully loaded)	0.6 m/s²
Motor braking deceleration (fully loaded)	1.5 m/s²
Overall gear ratio	24.97
Steering ratio	32
Steering speed	180 °/s
Steering angle	Unlimited
Nominal wheel rotational speed	198 rpm
Nominal current per motor	2.0 A
Nominal voltage motors	48 V
Max. acceleration torque	31.4 Nm
Max. braking torque (motorized)	54.6 Nm
Replaceability of wheel and brake	Yes
Weight	18 kg
Degree of protection[1]	IP54
Wheel material	Vulkollan
Wheel material hardness	95 Shore A
Service life[2]	12,000 h

Brake	
Nominal voltage	24 V DC
Nominal current (release/hold)[3]	700 mA
Brake control	PWM not permitted
Mechanical braking torque slip hub[4]	68.3 Nm
Tolerance of slip hub braking torque with environmental influences	20 %
Typical electrical engagement time for brake	30 ms
Engagement time of the latch	19 ms
Permissible number of emergency stops	500
Austausch Bremsenmodul	Yes

Feedback	
Motor Feedback Hall	
Feedback type	Digital Hall
Supply voltage range of Hall sensors	5 ... 24 V
Design	Open drain
Commutation sequence	3 X 4 PPR
Motor feedback encoder	
Encoder type	Magnetic incremental
Magnetic field used	Separate sensor magnet
Supply voltage of encoders	4.8 ... 5.5 V
Encoder interface	RS 422 (TTL)
Output voltage level of encoders	5 V
Maximum resolution / bits	10 bit
Maximum resolution / pulses per revolution (PPR)	1,024 PPR
Quadrature evaluation	4,096 CPR
Signals at ArgoDrive connector	A, B, nA, nB
MTTF values / Hall and encoder subsystems	12,972 years
Steering angle sensor	
Encoder type	Magnetic incremental (absolute)
Power supply[5]	24 V
Output signal levels	5 V
Zero-position accuracy	± 1 °
Resolution	12 bit
Protocol	Standard SSI protocol
Encoding	Gray
Data frame	13 bit
Transmission frequency	10 MHz

Environment conditions	
Climatic conditions EN 60721-3-3:1995	Class 3K3
Environment temperature	5 ... 50 °C
Relative humidity	5 ... 95 %
Max. installation height	1,000 m above sea level
Permissible ground condition	Dry/fixed / (asphalt/ screed concrete / industrial floor floors)
Thresholds / steps (permissible height)	3.6 mm
Maximum incline	5 %

EMC immunity and emissions

DIN EN 1175-1 Safety of industrial trucks; DIN EN Industrial trucks - electromagnetic compatibility

[1] Gearbox without brake

[2] In complience with the defined load and ambient conditions. This does not include the components subject to maintenance: Wheel, slip hub (of brake) and lubricant. These are subject to maintenance depending on the load and application.

[3] 310 mA after 1 second

[4] Tolerance 10 %

[5] Internally controlled to 5V