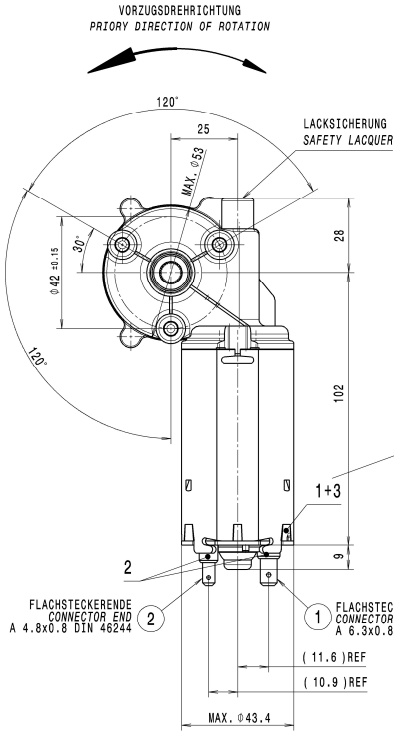


SAMPLING AND RELEASE ACCORDING TO HQ-P-7.3 AND NMA SUPPLIER MANUAL

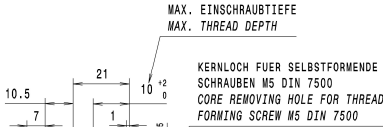
SPECIAL CHARACTERISTIC	QUANTITY
SRC	0
SC	0
FC	0

REV. NO.	ZONE	DESCRIPTION	DATE	NAME
0001134	KOHLEQUALITAET GRADIENT	QUALITY CARBON BRUSH CHANGE	2016-08-25	BORSTA

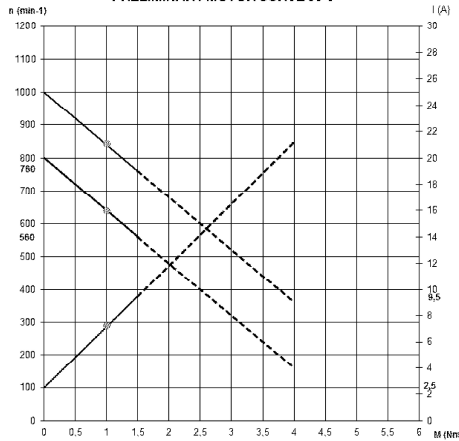


DECKELBEFESTIGUNG GENIETET WAHLWEISE GESCHRAUBT (4x) COVER FIXING: RIVETS OR SCREWS OPTIONAL (4x)

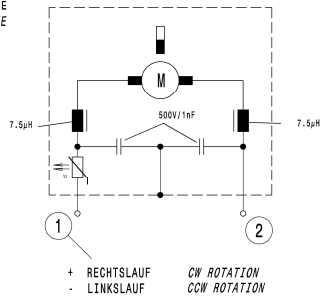
KERBVERZAHNUNG 7x8 DIN 5481 DURCHGEHEND TRAGANTEIL 60% TAPERED SPLINES 7x8 DIN 5481 CONTINUOUS SUPPORTING PART 60%



VORLAEUFIGE MOTORKENNLINIE 36V PRELIMINARY MOTOR CURVE 36 V



SCHALTBILD CIRCUIT DIAGRAM



POS. ITEM	BENENNUNG TITLE	MATERIAL MATERIAL
3	KOHLEQUALITAET QUALITY CARBON BRUSH	09
2	STECKER FL UMSPRITZUNG MOULDING TERMINAL WS	ZYTEL FR70 G25 V0 BK 369
1	PLATTE HALTE BRUSH M PLATE	ULTRAMID A3 UG5

A) ALLGEMEINES

- BETRIESSPANNUNG UN = 36V DC
- LEERLAUFDREHZAHL n0 = 800-1000/min
- LEERLAUFSTROM I0 = ~2.5A
- ENTSTOERBAUTEILE = SIEHE DIAGRAM
- ISOLATIONSPRUEFUNG = NA
- BETRIEBEHEMUNG STATISCH = NA
- RADIALBELASTUNG DER ABTRIEBSWELLE = NA
- AXIALBELASTUNG DER ABTRIEBSWELLE = NA
- GERAEUESCHPEGEL = NA
- UMGEBUNGSTEMPERATUR = -25°C BIS +60°C
- SCHUTZART IP = 30
- VIBRATION = NA

A) GENERAL

- NOMINAL VOLTAGE UN = 36V DC
- NO LOAD SPEED n0 = 800-1000/min
- NO LOAD CURRENT I0 = ~2.5A
- RFI SUPPRESSION = SEE DIAGRAM
- ISOLATION TEST = NA
- SELF LOCKING STATIC = NA
- RADIAL LOAD ON DRIVE SHAFT = NA
- AXIAL LOAD ON DRIVE SHAFT = NA
- NOISE LEVEL = NA
- TEMPERATURE = -25°C TO +60°C
- PROTECTION IP = 30
- VIBRATION = NA

B) BETRIEBSDATEN

- BETRIEBSMOMENT (NENNLAST) = ANSTIEGEND BIS 1.0Nm (RL+LL)
- BETRIEBSTROM (NENNLAST) = ANSTIEGEND BIS 6A (RL+LL)

B) RUNNING DATA

- NOMINAL LOAD = INCREASE TILL 1.0Nm (CW+CCW)
- OPERATING CURRENT = INCREASE TILL 6A (CW+CCW)

C) LEBENSDAUERPRUEFUNG

- PRUEFSPANNUNG = 30 V
- ANZAHL DER ZYKLEN = 60.000 (ZIEL 400.000)
- ZYKLUSBESCHREIBUNG = 8s LL, 32s PAUSE
- PRUEFMOMENT = 1 Nm
- PRUEFTEMPERATUR = RT
- PRUEFPLAGE = BELIEBIG
- FREMDKUEHLUNG = ZUR VERKUEHLUNG DER PAUSEN ZULAESSIG
- LEISTUNG NACH DAUERTEST = ABWEICHUNG BIS 10% ZULAESSIG

C) LIFE TEST

- TEST VOLTAGE = 30 V
- NUMBER OF CYCLES = 60.000 (TARGET 400.000)
- CYCLE DEFINITION = 8s CCW, 32s BREAK
- TEST LOAD = 1 Nm
- TEST TEMPERATURE = RT
- TEST POSITION = OPTIONAL
- EXTERNAL COOLING = AS REDUCTION THE BREAKS PERMISSIBLE
- PERFORMANCE AFTER LIFE TEST = DEVIATIONS LIMIT 10%

D) MITGELTENDE UNTERLAGEN

- ALLG. SPEZIFIKATION INDUSTRIEMOTOREN NIDEC NACH SWF 46.402 (AUSGABE VOM 09.04.1998)

DARUEBERHINAUS GEHENDE ANFORDERUNGEN HAT DER KUNDE DURCH PRUEFUNGEN IM SYSTEM SICHERZUSTELLEN. HIERFUER UEBERNIMMT NIDEC KEINE HAFTUNG.

D) OTHER VALID DOCUMENTS

- GEN. SPEZIFIKATION INDUSTRIAL MOTORS NIDEC ACC. TO SWF 46.402 (EDITION AT 09.04.1998)

ADDITIONAL REQUIREMENTS, WHICH ARE NOT CONTENT OF THE ABOVE SPECIFICATION, HAVE TO BE SECURED BY THE CUSTOMER. FOR THIS ADDITIONAL REQUIREMENTS NIDEC CAN TAKE NO PRODUCT LIABILITY.

HERSTELLER-LOGO / MANUFACTURER TRADEMARK

KUNDEN-SACH-NR. / CUSTOMER-PART-NO.

JAHR / YEAR  
01 = 2001  
02 = 2002  
USW. / ETC.

MONAT / MONTH  
05 = MAI / MAY  
12 = DEZ. / DEC.  
USW. / ETC.

HERSTELLER-SACH-NR. / MANUFACTURER-PART-NO.

MOTORSPANNUNG OPTIONAL / MOTOR VOLTAGE OPTIONAL

KUNDEN-INDEX / CUSTOMER-INDEX

EMV-HINWEIS / EMC-NOTE

HERSTELLUNGSLAND / MANUFACTURING COUNTRY

BARCODE 2/5 / INTERLEAVED 2/5

INTERNE SCHICHTKENNZEICHNUNG / INTERNAL SHIFT WORK IDENTIFICATION

A = FRUEHSCHICHT / MORNING SHIFT  
B = SPAETSCHICHT / EVENING SHIFT  
C = NACHTSCHICHT / NIGHT SHIFT

TAG / DAY  
11  
12  
USW. / ETC.

TEMPERATURSCHUTZ DES MOTORS SCHALTET NICHT SELBSTSTAENDIG ZURUECK  
TEMPERATURSCHUTZ DES MOTORS BEI 36V RT: AUSLÖSEZEIT MIN. 1s, MAX. 10s; MAX. 200 ZYKLEN  
70°C: SOFORT BEI BLOCKSTROM: MAX. 50 ZYKLEN  
TEMPERATURE PROTECTION OF THE MOTOR DO NOT SWITCH BACK AUTONOMOUS  
TEMPERATURE PROTECTION OF THE MOTOR AT 36V RT: SWITCH TIME MIN. 1s, MAX. 10s; MAX. 200 CYCLES  
70°C: IMMEDIATELY AT BLOCK CURRENT: MAX. 50 CYCLES

MAX. ZULAESSIGES MAXIMALDREHMOMENT 2Nm  
MAX. ALLOWED MAX. TORQUE 2Nm  
MAX. ZULAESSIGES BETRIEBSDREHMOMENT 1.5Nm  
MAX. ALLOWED MAX. OPERATION TORQUE 1.5Nm

MOTOR NUR IM SCHALTBETRIEB BETREIBEN!  
ED 10%  
ANKERAXIALSPIEL 0.1-0.4mm  
MOTOR ONLY TO BE USED ON SHORTTIME BASE!  
10% DUTY CYCLE  
END PLAY OF ARMATURE MOT 0.1-0.4mm

UEBERSETZUNG 1=56:4  
GEAR RATIO 1=56:4

ENTFLAMMBARKEIT NACH FMVSS 302 IST NACHZUWEISEN  
FLAMMABILITY ACCORDING TO FMVSS 302 HAS TO BE PROVED

NA NICHT ANGEWENDET NOT APPLICABLE \*\* 100% PRUEFUNG \*\* 100% CHECKING

LIMIT DIMENSIONS FOR NOMINAL SIZE RANGES IN mm	...6	>6...30	>30...120	>120...400	>400...1000
TOLERANCES FOR NOMINAL SIZE RANGES IN mm	± 0.1	0.2	0.3	0.5	0.8
LIMIT DIM. FOR NOMINAL SIZE RANGES IN DEGREE / MINUTE (SHORTER ANGLE SIDE)	...10	>10...50	>50...100	>100	
TOLERANCES FOR NOMINAL SIZE RANGES	1'	30'	20'	10'	
SURFACE FINISH ACC. TO SWF 00.051 NORM FOR SURFACE FINISH					
SURFACE TEXTURE ACC. TO DIN EN ISO 1302			EDGES ACC. TO ISO 13715		
GEOMETRICAL PRODUCT SPECIFICATIONS (GPS) SIZE ISO 14405 (E)			GEOM. TOLERANCES ACC. TO DIN EN ISO 1101		
STOCK MATERIAL					
CUSTOMER REFERENCE NO. 33 2676 8000			NORM FOR MATERIAL SPECIFICATION		
MATERIAL SPECIFICATION ACC. TO SWF 10.XXX					

MATERIAL NO.	OLD SPATN MATERIAL NO.	REFERENCE NO.
405-816-99-99		4E 4253 A 300
ARTICLE NO. 0225		
TITLE MOTOR GMPG GEAR-MOTOR GMPG		
ALL DIMENSIONS IN mm SCALE 1:1		
RELEASE-LEVEL		
DT DOCUMENT NO. A	10000019400	VERSION SHEET OF FORMAT 02 1 1 A1
DATE NAME	25.02.2016 BORSTA	
DRAWN	29.03.2016 BRUNER	
CHECKED	29.03.2016 BRUNER	
RELEASED	29.03.2016 BRUNER	
NIDEC MOTORS & ACTUATORS GERMANY / POLAND / SPAIN		
SUB. FOR		

