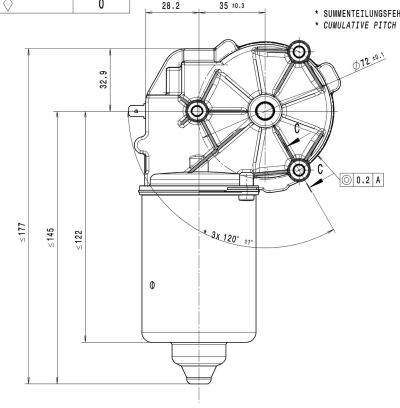
SAMPLING AND RELEASE ACCORDING TO HQ-P-7.3 AND NWA SUPPLIER MANUAL

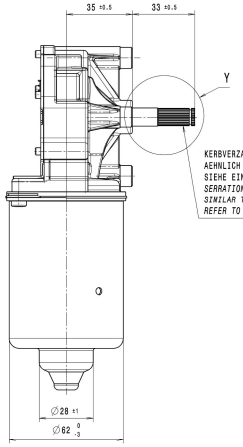
SPECIAL CHARACTERISTIC	QUANTITY
SRC S/R	0
SC ◆ F	0
FC ◇ F	0

REV. NO.	ZONE	DESCRIPTION		DATE	NAME
50000641		DOPPELTVERSTEMMT NWA EINFACHVERSTEMMT	DOUBLE STAKING NWA SINGLE STAKING	2014-02-19	PITTOOOO

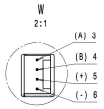
VORZUGSDREHRICHTUNG
PRIORY DIRECTION OF ROTATION

* SUMMENTEILUNGSFEHLER: ±20'
* *CUMULATIVE PITCH ERROR: ±20'*





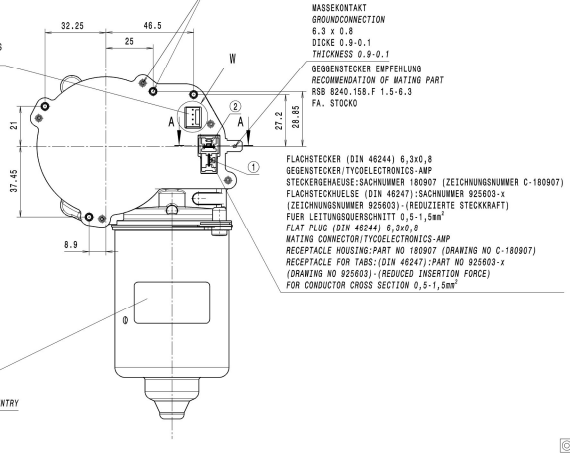
KERBVERZAHNUNG 8x10
AEHNLICH DIN 5481 (28 ZAEHNE)
SIEHE EINZELHEIT Z
SERRATION 8x10
SIMILAR TO DIN 5481 (28 TEETH)
REFER TO DETAIL Z



MAS-CON STECKER-NR.: WLAS 100
GEGENSTECKER PANDUIT-NR.: CE100 F22-04
FUER LEITERQUERSCHNITT ANG: 22
MAS-CON PLUG-NO.: WLAS 100
PLUG CONNECTION PANDUIT-NO.: CE100 F22-04
FOR CONDUCTOR CROSS SECTION AWG: 22

HANDHABUNGSHINWEIS IM BEREICH DES HALL-IC STECKERS: MOTOR DARF NICHT AUF DECKELSEITE GELAGERT WERDEN, AUF GRUND BESCHAEDIGUNGSGEFAHR DES HALL-IC STECKER PINS.
NOTE FOR HANDLING IN AREA OF HALL-IC-CONNECTOR: STORAGE OF MOTOR ON COVER SIDE IS NOT PERMISSIBLE, DUE TO RISK OF DAMAGING THE HALL-IC CONNECTOR PINS.

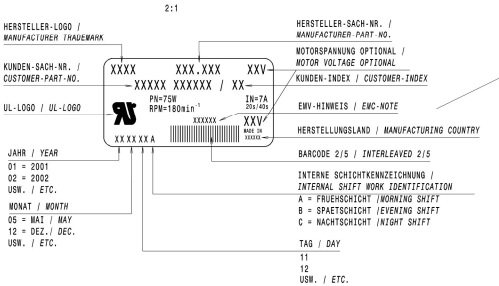
DECKELBEFESTIGUNG WAHLWEISE GENIETET ODER GESCHRAUBT
COVER FIXING RIVETS OR SCREWS OPTIONAL



MASSEKONTAKT
GROUNDCONNECTION
6.3 x 0.8
DICKE 0.9-0.1
THICKNESS 0.9-0.1

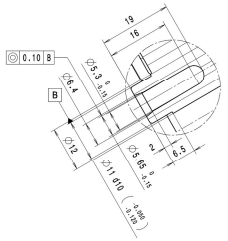
GEGENSTECKER EMPFEHLUNG
RECOMMENDATION OF MATING PART
RSB 8240.158.F 1.5-6.3
FA. STOCKO

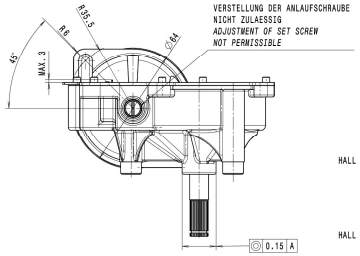
FLACHSTECKER (DIN 46244) 6,3x0,8
GEGENSTECKER/TYCOELECTRONICS-AMP
STECKERGEHAEUSE:SACHNUMMER 180907 (ZEICHNUNGSNUMMER C-180907)
FLACHSTECKHUELSE (DIN 46247):SACHNUMMER 925603-x
(ZEICHNUNGSNUMMER 925603)-(REDUZIERTE STECKKRAFT)
FUER LEITUNGSQUERSCHNITT 0,5-1,5mm²
FLAT PLUG (DIN 46244) 6,3x0,8
MATING CONNECTOR/TYCOELECTRONICS-AMP
RECEPTACLE HOUSING:PART NO 180907 (DRAWING NO C-180907)
RECEPTACLE FOR TABS:(DIN 46247):PART NO 925603-x
(DRAWING NO 925603)-(REDUCED INSERTION FORCE)
FOR CONDUCTOR CROSS SECTION 0,5-1,5mm²



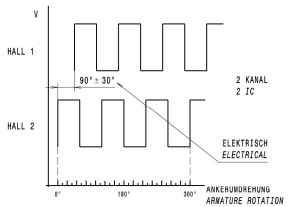
C-C (3x)
2:1

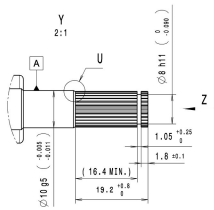
BEFESTIGUNGSLOECHER FUER SELBSTFORMENDE SCHRAUBEN M6,
POWER LOK GEWINDE DIN ISO 965-2, MAX. ZULAESSIGES
ANZUGSMOMENT DER BEFESTIGUNGSSCHRAUBE 13Nm
FASTENING HOLES FOR SELFFORMING SCREWS M6,
POWER LOK THREAD DIN ISO 965-2, MAX. PERMISSIBLE
TORQUE FOR FASTENING SCREW 13 Nm

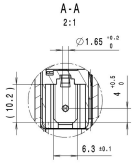




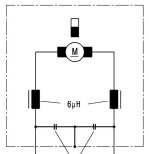
AUSGANGSSIGNAL REIHENFOLGE BEI CCW
OUTPUT SIGNAL SEQUENCE AT CCW





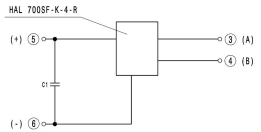


SCHALTBILD
CIRCUIT DIAGRAM



I TNKSI AUF CCW
RECHTSLAUF CW

SCHALTBILD ENCODER
CIRCUIT DIAGRAM ENCODER



DATEN HALL IC - 2 KANAL
DATA OF HALL IC -2 SIGNAL CHANNEL

SPANNUNGSBEREICH: Up = 4.5-24V
VOLTAGE RANGE

STROMAUFNAHME: ≤ 30 mA
CURRENT CONSUMPTION

TEMPERATURBEREICH: = -20° - +60°
TEMPERATURE RANGE

** AUSGANG: = 3 IMPULS PRO UMDREHUNG DER ANKERWELLE
** *OUTPUT:* = *3 PULSE PER REVOLUTION OF ARMATURE*

AUSGANGSSIGNAL
OUTPUT SIGNAL

AUSGANG: = OFFENER KOLLEKTOR
OUTPUT = *OPEN COLLECTOR*

SAETTIGUNGSSPANNUNG: UCESAT ≤ 0.4V = ULOW

LOW LEVEL OUTPUT VOLTAGE BEI/AT Ia= 26mA

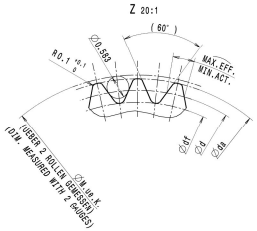
** TASTVERHAELTNIS DER AUSGANGSSIGNALE: 50% ±10%
PULSE DUTY FACTOR OF OUT-PUT SIGNAL

RISE AND FALL TIME >=25nV/ms BEI KUNDENAUSSENBESCHALTUNG
RISE AND FALL TIME >=25nV/ms AT CUSTOMER OUTSIDE PROTECTIVE CIRCUIT

EINSCHALTVERZOEGERUNG: 150 ms BEI 3.8V
ONTIME DELAY: 150 ms AT 3.8V

SCHALTFOLGE: BEI CCW HALL 2 PIN 4 GEFOLGT VON HALL 1 PIN 3
SWITCHING SEQUENCE: ON CCW HALL 2 PIN 4 FOLLOWED BY HALL 1 PIN 3

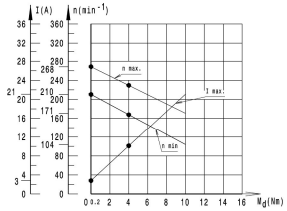
KERBVERZAHNUNGSDATEN
ABTRIEBSWELLE
SERRATION DATA DRIVE SHAFT



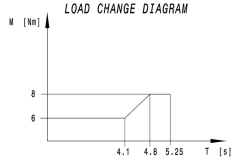
ZAEHNEZAHL = 28
NO. OF TEETH
LUECKENWINKEL = (60°)
SPACE WIDTH ANGLE
TEILKREIS-Ø d = 9.0
REFERENCE CIRCLE Ø
GRUNDKREIS-Ø =(8.03)
FORM CIRCLE Ø
KOPFKREIS-Ø da = 9.6-0.2
TIP CIRCLE Ø
FUSSKREIS-Ø df = 8.26+0.11/-0.09
ROOT DIAMETER
FUSSRADIUS THEOR. 0.08 IST 0.12 - 0.19
ROOT RADIUS
MAX. EFF. = 0.495
(MAX. ACT.) = 0.480
MIN. ACT. = 0.439
KUGEL-Ø = 0.583
BALL Ø
(W.ue.K. = MAX 9.816 / MIN 9.741)
VERZAHNUNG: LEHRENHALTIG NACH GUTLEHRRING FA. FRENCO 33906 UND SEKTORVERZAHNUNG AUSSCHUSSLEHRRING FA. FRENCO 56169
TOOTH GEAR: TRUE TO GAUGE ACCORDING GO RING GAUGE COMPANY FRENCO 33906 AND SECTION GEARING NO-GO RING GAUGE COMPANY FRENCO 56169

MOTORKENNLINIE
MOTOR CURVE

○ MESSPUNKTE KENNLINIE
** ○ *MEASURE POINTS GRAPH*



LAST WECHSEL DIAGRAMM
LOAD CHANGE DIAGRAM



GETRIEBEDATEN:
DATA OF GEAR

UEBERSETZUNG i = 70:4
RATIO OF GEARING
ZAEHNEZAHL DER SCHNECKE z = 4
NO. OF TEETH OF WORM
MODUL m = 0.789
MODULE

A) ALLGEMEINES

1. PRUEFSPANNUNG	UP = 24V DC	
2. LEERLAUFDREHZAHL	nO = ≥210-268 min-1	
3. LEERLAUFSTROM	IO MAX.= 3 A	
4. ENTSTOERBAUTEILE	= SIEHE SCHALTBILD	
5. MOTOR ISOLATIONSPRUEFUNG	= 850V DC FUER 1 SEC.	
6. GETRIEBEHEMMUNG STATISCH	= NA	
7. RADIALBELASTUNG DER ABTRIEBSWELLE	F= 3 N IN 21.5 mm ABSTAND VOM BEFESTIGUNGSDOWE	
8. AXIALBELASTUNG DER ABTRIEBSWELLE	F = 2 N	
9. GERAEUSCHPEGEL	= PRUEFUNG CMS_405_153	
10. UMGEBUNGSTEMPERATUR	= -20°BIS +40°C	
11. SCHUTZART	IP = 30	
12. VIBRATION	= NA	

B) BETRIEBSDATEN

NENNMOMENT (NENNLAST) MN = SIEHE LAST WECHSEL DIAGRAMM

C) LEBENSDAUERPRUEFUNG

1. ZYKLUS (DEFINITION)	
EINSCHALTDAUER RL.	= EIN 5 SEC.- PAUSE 10 SEC.
LL.	EIN 5 SEC.- PAUSE 10 SEC.
2. MAX. LEBENSDAUER	= 150 000 ZYKLEN
3. PRUEFMOMENT	= SIEHE LAST WECHSEL DIAGRAMM
4. FREMDKUEHLUNG	= ZULAESSIG

D) MITGELTENDE UNTERLAGEN

1. ALLG. SPEZIF. INDUSTRIEMOTOREN NIDEC NACH SNF 46.402 (AUSGABE VOM 09.04.1998) DARUEBERHINAUS GEHENDE ANFORDERUNGEN HAT DER KUNDE DURCH PRUEFUNGEN IM SYSTEM SICHERZUSTELLEN. HIERFUER UEBERNIMMT NIDEC KEINE HAFTUNG.

BEI BELASTUNG DES MOTORS UEBER 8 Nm IST AXIALSPIEL DES ANKERS ZULAESSIG

GETRIEBEFESTIGKEIT = 27 Nm min.

A) GENERAL

1. TEST VOLTAGE	UP = 24 V DC
2. NO LOAD SPEED	nO = ≥210-268 min-1
3. NO LOAD CURRENT	IONAX= 3 A
4. RFI SUPPRESSION	= SEE CIRCUIT DIAGRAM
5. MOTOR INSULATION TEST	= 850V DC FOR 1 S.
6. SELF LOCKING STATIC	= NA
7. RADIAL LOAD ON DRIVE SHAFT	F= 3 N IN 21.5 mm DISTANCE FROM MOUNTING PILLERS
8. AXIAL LOAD ON DRIVE SHAFT	F = 2 N
9. NOISE LEVEL	= ACC.CMS_405_153
10. TEMPERATURE	= -20°C TO +40°C
11. PROTECTION	IP = 30
12. VIBRATION	= NA

B) RUNNING DATA

NOMINAL LOAD MN = SEE LOAD CHANGE DIAGRAM

C) LIFE TEST

1. CYCLE (DEFINITION)	
CW.	= ON 5 s - BREAK 10 s CW
CCW.	= ON 5 s - BREAK 10 s CCW
2. MAX. LIFE TIME	= 150 000 CYCLES
3. TEST LOAD	= SEE LOAD CHANGE DIAGRAM
4. EXTERNAL COOLING	= PERMITTED

D) OTHER VALID DOCUMENTS

1. GENERAL SPECIF. INDUSTRIAL MOTORS NIDEC TO SNF 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.

AXIALPLAY OF THE ARMATURE IS PERMISSIBLE AT LOADS EXCEEDING 8 Nm

ULTIMATE GEAR STRENGTH = 27 Nm min.

** 100% PRUEFUNG
** 100% CHECKING

KONTROLL PLAN
CONTROL PLAN

NA NICHT ANGEWENDET
NOT APPLICABLE

405.153 ERZEUGNIS-NR.	24 V UN	24 V UP	BEMERKUNG
PRODUCT-NO.	SPANNUNG	VOLTAGE	REMARK

ITEM	MATERIAL NUMBER	QUANT.	TITLE	DOCUMENT NO.

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 SNF 00.051				WORK 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. TOLERANCING ACC. TO DIN EN ISO 1101		
STOCK MATERIAL					
CUSTOMER REFERENCE NO.					
MATERIAL SPECIFICATION ACC. TO SNF 10.XXX				WORK FOR MATERIAL SPECIFICATION	

MATERIAL NO.	OLD SPAIN MATERIAL NO.	REFERENCE NO.
405-153-99-99		

ALL DIMENSIONS IN mm

SCALE 1:1

RELEASE-LEVEL RELEASED

	DATE	NAME
DRAWN	02.07.2014	HOFFMANN
CHECKED	12.06.2015	BRUNNA
RELEASED	12.06.2015	SOMMERHALTER

TITLE
MOTOR DCK35
MOTOR DCK35

ARTICLE NO.
0268

DT	DOCUMENT NO.	VERSION	SHEET	OF	FORMAT
A	10000000765	06	1	1	A0

NIDEC MOTORS & ACTUATORS GERMANY / POLAND / SPAIN

DUP. FOR

COMPUTER DRAWING PLOTTED AT

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