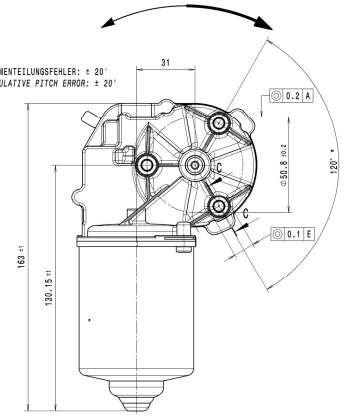
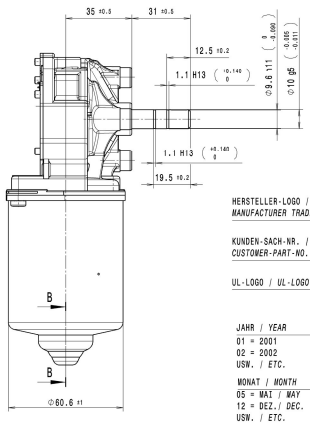
SAMPLING AND RELEASE ACCORDING TO HQ-P-7.3 AND NWA SUPPLIER MANUAL

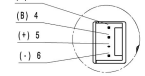
SPECIAL CHARACTERISTIC	QUANTITY
SRC S/R	0
SC ◆ F	0
FC ◇ F	0

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

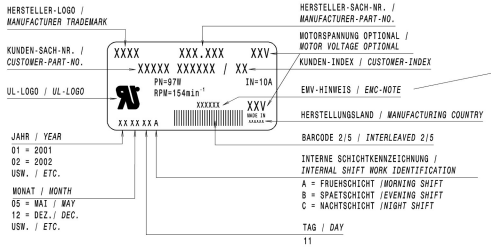
VORZUGSDREHRICHTUNG
PRIORY DIRECTION OF ROTATION



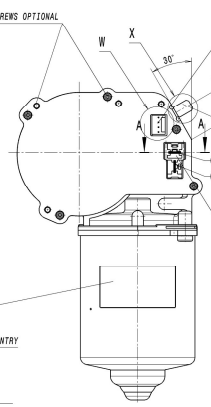




MAS-CON STECKER-NR.: MLAS 100
GEGENSTECKER PANDUIT-NR.: CE100 F22-04
FUER LEITERQUERSCHNITT AWG: 22
MAS-CON PLUG-NO.: MLAS 100
PLUG CONNECTION PANDUIT-NO.: CE100 F22-04
FOR CONDUCTOR CROSS SECTION AWG: 22



DECKELBEFESTIGUNG WAHLWEISE GENIETET ODER GESCHRAUBT
COVER FIXING RIVETS OR SCREWS OPTIONAL



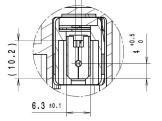
HANDHABUNGSHINWEIS IM BEREICH DES HALL-IC STECKERS: MOTOR DARF NICHT AUF DECKELSEITE GELAGERT WERDEN, AUF GRUND BESCHAEDIGUNGSGEFAHR DES HALL-IC STECKER PINS.
NOTE FOR HANDLING IN AREA OF HALL-IC-CONNECTOR: STORAGE OF MOTOR ON COVER SIDE IS NOT PERMISSIBLE, DUE TO RISK OF DAMAGING THE HALL-IC CONNECTOR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

FLACHSTECKER 6.3 x 0.8
NACH SWF 43.101 DIN 46244
DICKE 0.9-0.1
MALE SPADE TERMINAL 6.3 x 0.8 TO SWF 43.101 DIN 46244 THICKNESS 0.9-0.1

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

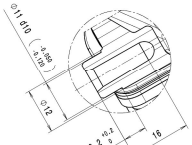
FLACHSTECKER (DIN 46244) 6,3x0,8
GEGENSTECKER/TYCOELECTRONICS-AMP
STECKERGEHAEUSE: SACHNUMMER 180907 (ZEICHNUNGSNUMMER C-180907)
FLACHSTECKHUELSE (DIN 46247): SACHNUMMER x-160526-x
(ZEICHNUNGSNUMMER C-160526)
FLACHSTECKHUELSE (DIN 46247): SACHNUMMER 925603-x
(ZEICHNUNGSNUMMER 925603)-(REDUZIERTE STECKKRAFT)
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 NOx-160526-x (DRAWING NO C-160526)
RECEPTACLE FOR TABS (DIN 46247): PART NO 925603-x (DRAWING NO 925603)-(REDUCED INSERTION FORCE); FOR CONDUCTOR CROSS SECTION 0,5-1,5mm²

A-A
2:1

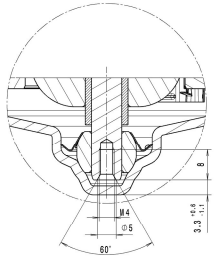


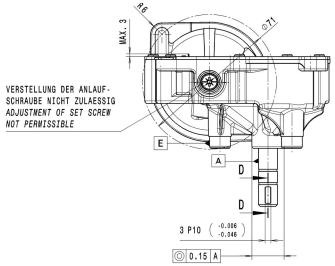
C-C (3x)
2:1

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

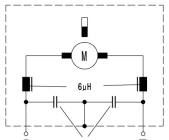


B-B
2:1



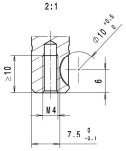


SCHALTBILD
CIRCUIT DIAGRAM



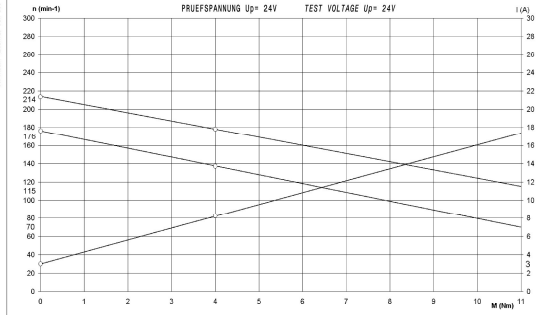
+ RECHTSLAUF	CW ROTATION
- LINKSLAUF	CCW ROTATION

D-D
2:1

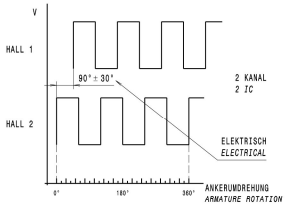


** ○ MESSPUNKTE KENNLINIE
** ○ *MEASURE POINTS GRAPH*

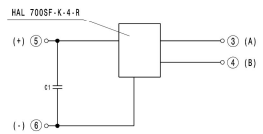
MOTORKENNLINIE *MOTOR CURVE*
PRUEFSPANNUNG Up= 24V *TEST VOLTAGE Up= 24V*



AUSGANGSSIGNAL REIHENFOLGE BEI CCW
OUTPUT SIGNAL SEQUENCE AT CCW



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°C - +60°C
TEMPERATURE RANGE

AUSGANG: = 3 IMPULSE 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% ± 25%
PULS DUTY FACTOR OF OUT-PUT SIGNAL

RISE AND FALL TIME >=25mV/µs BEI KUNDENAUSSENBESCHALTUNG
RISE AND FALL TIME >=25mV/µs AT CUSTOMER OUTSIDE PROTECTIVE CIRCUIT

EINSCHALTVERZOEGERUNG: 150ms BEI 3.8V
ON TIME DELAY: 150 ms AT 3.8V

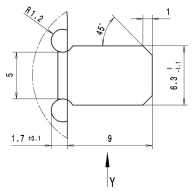
SCHALTFOLGE: BEI CCW HALL 2 PIN 4 GEFOLGT VON HALL 1 PIN 3
SWITCHING SEQUENCE: ON CCW HALL 2 PIN 4 FOLLOWED BY HALL 1 PIN 3

KOHLEQUALITAET 09
BRUSH QUALITY 09

Y
5:1

FLACHSTECKERENDE AM GERAET
AEHNLICH SWF 43.101 DIN 46244
MALE SPADE TERMINAL SIMILAR SWF 43.101 DIN 46244

X
5:1



A) GENERAL
1. NOMINAL VOLTAGE
2. NO LOAD SPEED
3. NO LOAD CURRENT
4. STALL CURRENT
5. STARTING TORQUE
6. RFI SUPPRESSION
7. THERMAL SWITCH
8. ISOLATION TEST
9. SELF LOCKING STATIC
10. RADIAL LOAD ON DRIVE SHAFT
11. AXIAL LOAD ON DRIVE SHAFT
12. NOISE LEVEL
13. AMBIENT TEMPERATURE
14. ENCLOSURE CLASS
15. VIBRATION

B) RUNNING DATA
OPERATING TORQUE (NOM. LOAD)
CURRENT LIMIT

C) LIFE TEST
1. CYCLE (DEFINITION)
2. TEST VOLTAGE
3. TEST TORQUE
4. TEST TEMPERATURE
5. EXTERNAL COOLING
6. MAX. LIFE TIME
7. PERFORMANCE AFTER LIVE TEST

D) OTHER VALID DOCUMENTS
1. GEN. SPECIFICATION INDUSTR.- MOTORS NIDEC ACC. 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.

A) ALLGEMEINES
1. NENNSPANNUNG UP = 24 V DC
2. LEERLAUFDREHZAHL n0 = 176-214MIN-1
3. LEERLAUFSTROM IO ≤ 3 A
4. BLOCKIERSTROM Ik > 26 A
5. BLOCKIERMOMENT MA ≥ 15 Nm
6. ENTSTOERBAUTEILE = SIEHE DIAGRAMM / *SEE DIAGRAM*
7. THERMOSCHALTER = NA
8. ISOLATIONSPRUEFUNG = 850V DC FUER 1 SEC. / *FOR 1 SEC.*
9. GETRIEBEHEMMUNG STATISCH = NA
10. RADIALBELASTUNG DER ABTRIEBSWELLE F = 80 N IN 25MM ABSTAND VOM GETRIEBEGEHAEUSE/*DISTANCE OF GEARHOUSING*
11. AXIALBELASTUNG DER ABTRIEBSWELLE F = 15 N
12. GERAEUSCHPEGEL = NA
13. UMGEBUNGSTEMPERATUR = -30°BIS +60°C
14. SCHUTZART IP = 30
15. VIBRATION = NA

B) BETRIEBSDATEN
NENNMOMENT (NENNLAST) MN = 4 Nm CW+CCW
STROMBEGRENZUNG = NA

C) LEBENSDAUERPRUEFUNG
1. ZYKLUS (DEFINITION) = AUF (CW) 20SEC. - PAUSE 40SEC./*ON (CW) 20SEC. - BREAK 40SEC.*
ZU (CCW) 20SEC. - PAUSE 40SEC./*OFF (CCW) 20SEC. - BREAK 40SEC.*
2. PRUEFSPANNUNG = 24 V DC
3. PRUEFMOMENT = 4 Nm MIT RADIALLAST/*WITH RADIAL LOAD*
4. PRUEFTEMPERATUR = RT
5. FREMDKUEHLUNG = ZUR VERKUERZUNG DER PAUSEN ZULAESSIG/*BY REDUCTION THE BREAKS PERMISSIBLE*
6. MAX. LEBENSDAUER = 30 000 ZYKLEN / *30 000 CYCLES*
7. LEISTUNG NACH LEBENSDAUERTEST = ABWEICHUNG BIS 10% ZULAESSIG/*DIFFERENCE TILL 10% PERMISSIBLE*

D) MITGELTENDE UNTERLAGEN
1. 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.

** 100% PRUEFUNG KONTROLLPLAN NA NICHT ANGEBENDET
** 100% CHECKING CONTROL PLAN *NOT APPLICABLE*

VERZAHNUNGSDATEN	*GEAR TOOTH DATA*		
UEBERSETZUNG	*RATIO*	i	= 1:26.5
GANGZAHL	*NO. OF STARTS*	z1	= 2
ZAEHNEZAHL	*NO. OF TEETH*	z2	= 53
NORMALMODUL	*NORMAL MODULE*	mn	= 1
ZAHNRADMATERIAL	*GEAR WHEEL MATERIAL*		= DELRIN 100

MAX. GETRIEBEFESTIGKEIT STATISCH : 24Nm
MAX. STATIC GEAR STRENGTH

WERKSTOFF MOTORTOPFLAGER : SINTERBRONZE
MATERIAL OF MOTOR HOUSING BEARING : BRONZE

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 — *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 SWF YB.XXX — *WORK FOR MATERIAL SPECIFICATION*

MATERIAL NO.	OLD SPAIN MATERIAL NO.	REFERENCE NO.
405-666-99-99		

ALL DIMENSIONS IN mm — SCALE 1:1

TITLE: **MOTOR DCK31** *MOTOR DCK31* — ARTICLE NO. 0266

RELEASE-LEVEL: RELEASED

DT	DOCUMENT NO.	VERSION	SHEET	OF	FORMAT
A	10000011264	02	1	1	A0

	DATE	NAME
DRAWN	02.03.2014	HOFFMANN
CHECKED	12.06.2015	BRUNNER
RELEASED	12.06.2015	SOMMERHALTER

NIDEC MOTORS & ACTUATORS GERMANY / POLAND / SPAIN — DUP. FOR

COMPUTER DRAWING PLOTTED AT

ITEM	MATERIAL NUMBER	QUANT.	TITLE	DOCUMENT NO.

COPYRIGHT RESERVED DIN ISO 16016 ©