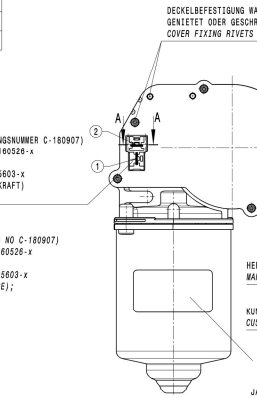
REV. NO.	ZONE	DESCRIPTION		DATE	NAME
50000841		DOPPELTVERSTEMMT NACH EINFACHVERSTEMMT	DOUBLE STAKING NAD SINGLE STAKING	2014-02-19	PJT30000

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

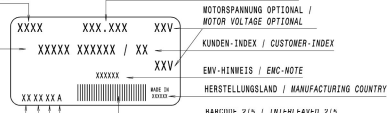
SPECIAL CHARACTERISTIC	QUANTITY
SRC	0
SC	0
FC	0



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

2:1



HERSTELLER-LOGO /
MANUFACTURER TRADEMARK

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

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

MOTORSPANNUNG OPTIONAL /
MOTOR VOLTAGE OPTIONAL

KUNDEN-INDEX / *CUSTOMER-INDEX*

EMV-HINWEIS / *EMC-NOTE*

HERSTELLUNGSLAND / *MANUFACTURING COUNTRY*

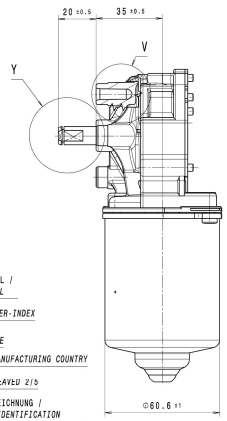
BARCODE 2/5 / *INTERLEAVED 2/5*

INTERNE SCHICHTKENNZEICHNUNG /
INTERNAL SHIFT WORK IDENTIFICATION
A = FRUEHSCHICHT /*MORNING SHIFT*
B = SPAETSCHICHT /*EVENING SHIFT*
C = NACHTSCHICHT /*NIGHT SHIFT*

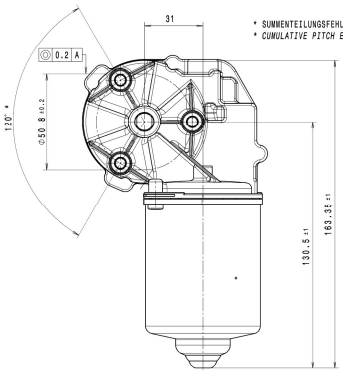
JAHR / *YEAR*
01 = 2001
02 = 2002
USW. / *ETC.*

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

TAG / *DAY*
11
12
USW. / *ETC.*

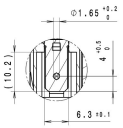


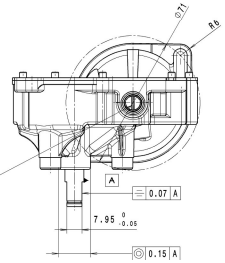
VORZUGSDREHRICHTUNG
PRIORY DIRECTION OF ROTATION



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

A-A
2:1

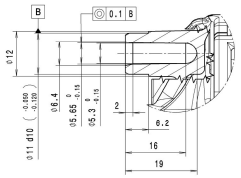




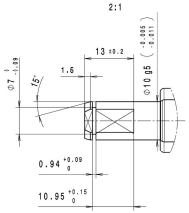
VERSTELLUNG DER ANLAUF-
SCHRAUBE NICHT ZULAESSIG
ADJUSTMENT OF SET SCREW
NOT PERMISSIBLE

V (3x)
2:1

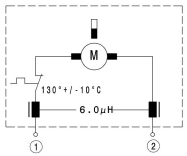
BEFESTIGUNGSLOECHER FUER SELBSTFORMENDE SCHRAUBEN M6,
POWER LOK GEWINDE DIN ISO 965-2, MAX. ZULAESSIGES
ANZUGSMOMENT DER BEFESTIGUNGSSCHRAUBE 13Nm
FASTENING HOLES FOR SELFFORMING SCREWS M6,
POWER LOK THREAT DIN ISO 965-2, MAX. PERMISSIBLE
TORQUE FOR FASTENING SCREW 13 Nm



Y
2:1



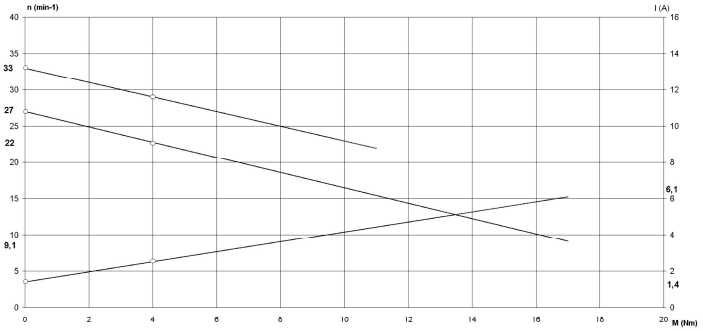
SCHALTBILD
CIRCUIT DIAGRAM



+ RECHTSLAUF	*CW ROTATION*
- LINKSLAUF	*CCW ROTATION*

** ○ MESSPUNKTE KENNLINIE
○ *MEASURE POINTS GRAPH*

MOTORKENNLINIE 20.5V ***MOTOR CURVE 20.5V***



A) GENERAL

**1.NO LOAD SPEED
**2.NO LOAD CURRENT
3.RFI SUPPRESSION SEE DIAGRAM
4.THERMO SWITCH FEATURES =
TO RT AND 20.5V DC DWELL 1
MAX. CURRENT 8.9 A BREAK
MAX. TORQUE 27.9 Nm DWELL 2
5.ISOLATION TEST
6.SELF LOCKING STATIC
7.RADIAL LOAD ON
DRIVE SHAFT
8.AXIAL LOAD ON
DRIVE SHAFT
9.NOISE LEVEL
10.TEMPERATURE
11.PROTECTION
12.VIBRATION
13.SHORT-CIRCUIT CURRENT
14.STARTING TORQUE

B) RUNNING DATA

CURRENT (LOAD)
CURRENT (MAX. LOAD)
NORMAL SPEED
MOUNTING POSITION

C) LIFE TEST (WILL BE DONE BY CUSTOMER)

1.CYCLE
2.TEST VOLTAGE
3.TEST TORQUE
4.TEST CURRENT
5.RADIALLY BURDEN

6.TEST TEMPERATURE
7.TEST POSITION
8.MAX. LIFE TIME
9.DIRECTION OF ROTATION
10.EXTERNAL COOLING

11.PERFORMANCE AFTER LIFE TEST

D) OTHER VALID DOCUMENTS

1.GEN. SPECIFICATION INDUSTRIAL 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.

E) DATA OF WINDING

12 COIL
39 NUMBER OF TURNS
0.4mm WIRE DIAMETER

A) ALLGEMEINES

**1.LEERLAUFDREHZAHL nO = 27 BIS 33/min
**2.LEERLAUFSTROM IO = 1.4A max
3.ENTSTOERBAUTEILE = SIEHE DIAGRAMM
4.THERMOSCHALTERFUNKTION =
BEI RT UND 20.5V DC HALTEZEIT1 >2 sec <10 sec
MAX. STROM 8.9 A PAUSEZEIT >2 sec < 5 sec
MAX. MOMENT 27.9 Nm HALTEZEIT2 >0.5 sec <5 sec
5.ISOLATIONSPRUEFUNG = 500 VAC
6.GETRIEBEHEMMUNG STATISCH = NA
7.RADIALBELASTUNG DER
ABTRIEBSWELLE F = 80N
8.AXIALBELASTUNG DER
ABTRIEBSWELLE F = NA
9.GERAEUSCHPEGEL = NA
10.UMGEBUNGSTEMPERATUR = -20°BIS +60°C
11.SCHUTZART IP = 30
12.VIBRATION = NA
13.BLOCKIERSTROM Ik = SIEHE DIAGRAMM / *SEE DIAGRAM*
14.BLOCKIERMOMENT MA = SIEHE DIAGRAMM / *SEE DIAGRAM*

B) BETRIEBSDATEN

BETRIEBSSTROM (NENNLAST) = 1.5A (RL)
BETRIEBSSTROM (MAX.LAST) = 2.3A (RL)
BETRIEBSDREHZAHL Nmax = 24/min
EINBAULAGE = BELIEBIG / *ANY*

C) LEBENSDAUERPRUEFUNG (WIRD VOM KUNDEN DURCHGEFUEHRT)

1.ZYKLUS = RL 7 sec / *cw 7 sec* - PAUSE 3 sec / *BREAK 3 sec*
2.PRUEFSPANNUNG UP = 20.5V DC
3.PRUEFMOMENT = 6 Nm
4.PRUEFSTROM = (1.5A)
5.RADIALBELASTUNG = MIT ORIGINALZAHNRAEDERN 34:12 + MONTAGEWINKEL
WITH ORIGINAL GEAR WHEELS 34:12 + MOUNTIG ANGLE
6.PRUEFTEMPERATUR = RT
7.PRUEFLAGE = WIE EINBAUSITUATION / *TO LOCATIONS*
8.MAX. LEBENSDAUER = 900.000 ZYKLEN / *900.000 CYCLES*
9.DREHRICHTUNG = RECHTS / *RIGHT*
10.FREMDKUEHLUNG = ZUR VERKUERZUNG DER PAUSEN ZULAESSIG BIS
BEHARRUNGSTEMP. AM GEHAEUSE M 55° BIS 65°C
FOR REDUCTION OF THE BREAK PERMISSIBLE
STEADY CONDITIONS MOTOR HOUSING 55° TO 65°C
11.LEISTUNG NACH = ABWEICHUNG BIS 10% ZULAESSIG
LEBENSDAUERTEST *DEVIATIONS LIMIT 10%*

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.

E) WICKELDATEN

12 SPULEN
39 WINDUNGEN
0.4mm DRAHTDURCHMESSER

**100% PRUEFUNG KONTROLL PLAN
**100% *CHECKING* *CONTOL PLAN*

NA] NICHT ANGEWENDET
NOT APPLICABLE

VERZAHNUNGSDATEN	*GEAR TOOTH DATA*		
UEBERSETZUNG	*RATIO*	i	= 1:69
GANGZAHL	*NO. OF STARTS*	z1	= 1
ZAHNREZAHL	*NO. OF TEETH*	z2	= 69
NORMALMODUL	*NORMAL MODULE*	mn	= 0.8
ZAHNRADMATERIAL	*GEAR WHEEL MATERIAL*		= DELRIN 100

MAX. GETRIEBEFESTIGKEIT STATISCH : 28Nm
MAX. GETRIEBEFESTIGKEIT DYNAMIGCH: 17Nm
MAX. STATIC GEAR STRENGTH
MAX. DYNAMIC GEAR STRENGTH

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. TOLERANCING ACC. TO DIN EN ISO 1101
STOCK MATERIAL
CUSTOMER REFERENCE NO. 6143861
MATERIAL SPECIFICATION ACC. TO SWF 16.XXX — NORM FOR MATERIAL SPECIFICATION

MATERIAL NO.	OLD SPAIN MATERIAL NO.	REFERENCE NO.
404-872-99-99		

ALL DIMENSIONS IN mm

SCALE 1:1

RELEASE-LEVEL
RELEASED

	DATE	NAME
DRAWN	05.02.2014	HOFFMANN
CHECKED	11.06.2015	BRUNNER
RELEASED	12.06.2015	DOMBROWALTERS

TITLE
MOTOR DCK31
MOTOR DCK31

ARTICLE NO. **0266**

DT	DOCUMENT NO.	VERSION	SHEET	OF	FORMAT
A	**10000002136**	**03**	**1**	**1**	**A0**

NIDEC MOTORS & ACTUATORS
GERMANY / POLAND / SPAIN

DUB. FOR

COMPUTER DRAWING PLOTTED AT

ITEM	MATERIAL NUMBER	QUANT.	TITLE	DOCUMENT NO.

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