Technisches Englisch

Elektrotechniker sollten englischsprachige Dokumentationen und Pläne lesen können. In Kooperation mit www.engineering-report.de erleichtert diese Seite den Zugang zur englischen Sprache und vermittelt elektrotechnische Fachausdrücke.

Three-Phase Stepper Motors

Astrosyn International Technology is **launching** an **advanced** three-phase motor with **driver**, which together are said to offer significant **advantages over** conventional two- and four-phase designs. The three-phase layout **enables** the **stepper motor** to have a very **quiet**, **smooth** operation as well as high **accuracy**, with a **step-angle** of 1.2 degree compared with the usual 1.8 **degree**. Packaged as a Nema size 24 motor, the unit has six inputs, **rather than** the four or eight **wires** usually found in stepper motors. Its P306 driver operates with a **direct current** input of 18-45 V, producing an output current of 3.0-5.8 A per phase. Eight micro-stepping **resolutions** can be selected with this **full-bridge** bipolar unit. The smooth operation makes the three-phase stepper **suitable** for **replacing** two-, four- or five-phase stepper motors. Typical applications are those where smooth running and low **noise** and vibration are **paramount**, such as in the control of laser **beams** in **engraving machines**, scanning control in medical instruments, and the movement of **stage lighting** in theatres.

By courtesy of Engineer Live

accuracy Genauigkeit
advanced hochentwickeln, fortgeschritten
advantage over Vorteil gegenüber
beam Strahl, Strahlenbündel
degree Grad
direct current Gleichstrom
driver Treiber
enable befähigen, in die Lage versetzen
engraving machine Graviermaschine
full-bridge Vollbrücken-
launch auf den Markt bringen
noise Geräusch
paramount höchst, vorrangig, überragend
quiet ruhig
rather than eher als, hier: anstelle von
replace ersetzen
resolution Auflösung
smooth gleichförmig, sanft
stage lighting Bühnenbeleuchtung
step-angle Stufenwinkel
stepper motor Schrittantrieb, Schrittmotor
suitable geeignet, passend
wire Ader, Draht, Kabel, Leitung

Mathematical Symbols

In technical English we often **deal with** mathematical symbols. What are they called and how do you read them? This **issue** will tell you.
Please **try** to remember what each of the symbols below is called. Then **match** each symbol in the box with its **designation** and reading **below**.

deal with sich befassen mit
issue Ausgabe
try versuchen
match zusammenfügen
designation Bezeichnung
below unten, darunter

a	+	**k**	≠
b	−	**l**	=
c	x	**m**	x^n
d	÷	**n**	x^2
e	$\frac{a}{b}$	**o**	√
f	/	**p**	$\sqrt[n]{}$
g	\	**q**	$\sqrt[3]{}$
h	>	**r**	%
i	<	**s**	(…) […]
j	≅	**t**	{…}

1. braces
2. multiplication sign/(multiplied) by
3. fraction bar/a over b/a divided by b
4. plus/positive sign
5. backslash
6. sign of equality/is equal to; equals
7. less sign/is less than
8. greater sign/is greater than
9. approximation sign/is approximately equal to
10. exponent/x to the power of n
11. percentage sign/per cent
12. round/square brackets
13. cube root
14. sign of inequality/is not equal to
15. division sign/divided by
16. index/the nth root of
17. minus/negative sign
18. slash
19. radical sign/square root
20. x squared

New on the job



A passenger in a taxi **leaned over** to ask the driver a question and **tapped** him on the **shoulder**.
The driver **screamed**, **lost control** of the **cab**, nearly hit a bus, **drove** up over the **curb**, and stopped just inches from a large glass window.
For a few moments everything was **silent** in the cab, and then the still **shaking** driver said, "I'm sorry, but you **scared the daylight out of me**."
The **frightened** passenger **apologised** to the driver and said he didn't **realise** a mere tap on the shoulder could frighten him so much. The driver **replied**, "No, no, I'm sorry, it's **entirely** my **fault**. Today is my first day driving a cab. I've been driving a **hearse** for the last 25 years.

apologise sich entschuldigen
below unten, unterhalb
cab (US) Taxi
curb Bordstein
drive, drove, driven fahren
entirely vollkommen, völlig *hier:* ganz allein
fault Fehler, Schuld
frighten verängstigen, verschrecken
hearse Leichenwagen
hit treffen, *hier:* zusammen stoßen
lean over sich nach vorn lehnen
lose (lost, lost) control die Kontrolle verlieren
realise bemerken
reply antworten, entgegnen
scare the daylight out of s.o. jdn. zu Tode erschrecken
scream schreien
shake schütteln, *hier:* zittern
shoulder Schulter
silent still, ruhig
tap tippen, das Tippen

P. Zillmer

Lösungen
a 4 b 17 c 2 d 15 e 3 f 18 g 5
h 8 i 7 j 9 k 14 l 6 m 10 n 20
o 19 p 16 q 13 r 11 s 12 t 1