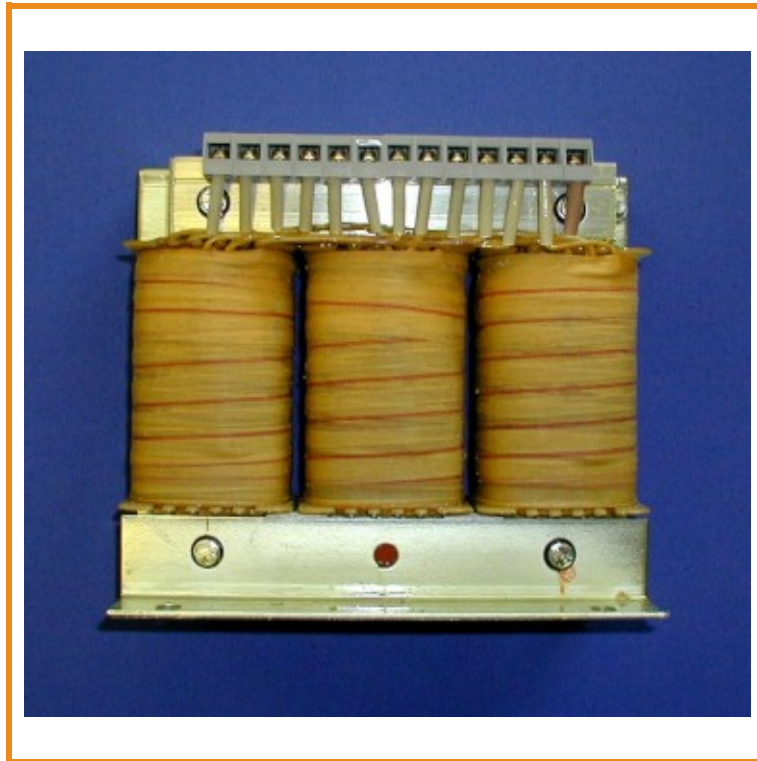



# DTK S

## Three-phase autotransformer



UL: - 	none
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Made in Germany, 2005

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Thanks for your confidence choosing our product.

These operating instructions present themselves as an overview of the technical data and features.

Please read the operating instructions before operating the product.

If you have any questions, please contact your nearest SSD Drives representative. Improper application of the product in combination with dangerous voltage can lead to injuries.

In addition, damage can also occur to motors or other products.

Therefore please observe our safety precautions strictly.

### **Safety precautions**

We assume that, as an expert, you are familiar with the relevant safety regulations, especially in accordance with VDE 0100, VDE 0113, VDE 0160, EN 50178, the accident prevention regulations of the employers liability insurance company and the DIN regulations and that you are able to use and apply them.

As well, relevant European Directives must be observed.

Depending on the kind of application, additional regulations e.g. UL, DIN are subject to be observed.

If our products are operated in connection with components from other manufacturers, their operating instructions are also subject to be observed strictly.

## 1.1 Description

The autotransformer is employed AC – voltage to step down.  
The performed transformers are suitable to mounting in cases and switchplants or similar units up to degree of protection IP23.

## 1.2 Modle Type

Marking	Standard		
	a	b	c
Type:	DTK	S	XXXXX

Marking	Description
a	DTK = three phase dry-type transformer
b	S = autotransformer
c	XXXXX = throughput rating [VA]

### 1.2.1 Typical example

A typical example of an order corresponding to the type code:

**Type: DTK S 01800**

DTK = Three-phase transformer

S = economical

01800 = 1800 VA

## 1.3 Possible options

Upon request can also other voltage than the ones here performed are transformed!

## 1.4 General technical data

Three phase try-type transformer in economy connection series: DTK S

voltage: a) primary 3 x 400 V AC with ± 10 % tap  
b) secondary 3 \* 230 V AC

frequency: 50 ... 60 Hz

circuit: Yyn0

type of enclosure: IP 00 in acc. with VDE0532

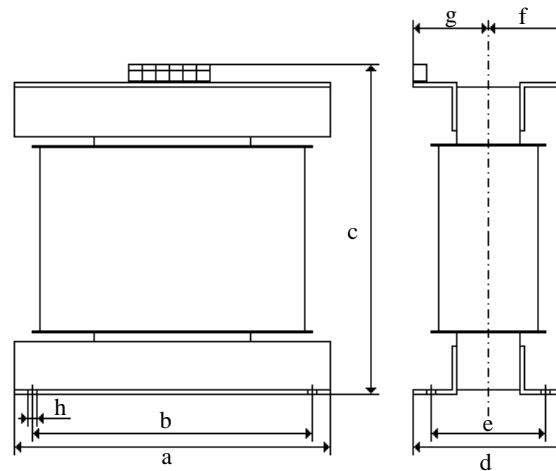
max. ambient temperature: 40 ° C

standing design

### important:

**no galvanic separation between primary- and secondary winding**

Standard dimensions:



throughput rating (VA)	design rating (VA)	dimensions in mm								copper wight (kg)
		a	b	c	d	e	f	g	h	
470	200	180	160	190	73	55			9	2
700	300	180	160	190	88	70			9	3
950	400	180	160	190	88	70			9	4,3
1200	500	180	160	190	98	80			9	5
1800	750	240	190	250	104	92			10	6
2400	1000	240	190	250	124	112			10	7
3600	1500	285	259	285	113	87			11	8,5
4800	2000	285	259	255	133	107	70	70	11	12
5950	2500	285	259	285	133	107			11	13
7200	3000	285	259	285	133	107			11	14
9500	4000	285	259	285	163	137			11	20
11900	5000	360	290	380	142	112			11	21
15000	6300	360	290	385	157	127	78	92	11	23
17900	7500	420	380	440	156	120			11	28
23800	10000	420	380	440	176	140			11	34
28600	12000	510	470	535	188	148			13	40

**important:**

Measure "g" Consider space for cable connector!

### determination for the continuity power

$$S_{D'} = I_{\text{eff}} * U_{\text{ccN}} [\text{VA}] I_{\text{eff}} \cong \text{effective power demand} \quad [\text{A}]$$

$$U_{\text{ccN}} \cong \text{nominal link voltage,} \quad [\text{V}]$$

(nominal voltage from the motor)

simplified acceptance:

$$t_{\text{Be}} = t_{\text{Br}} \quad \text{acceleration time / braking time}$$

i. e.  $I_{\text{eff}}$  only 50 % require

$$S_{D''} = 1/2 * S_{D'} [\text{VA}] \quad f = \text{coincidence factor for the axes} \quad [-]$$

z = number of axes:	1	2	3	4	5	6
f = coincidence factor for the axes :	1	0,87	0,76	0,57	0,5	0,4

$$SD = 0,5 * z * f * I_{\text{eff}} * U_{\text{ccN}} [\text{VA}]$$

**Transformer selection : select the near smaller type from table "Chapter 2"!**

Version	Modification	Chapter	Date	Name	Comment
V04.15ST99	new chapter new chapter	1 4	15.04.1999	K. Stadler	
V0503	all chapter english change dimension DTK S 1800 DTK S 2400 simplified dimensioning	- 3 4	27.03.2003	N. Dreilich	ET- Format dimension b and e new
V0605	SSD Drives	-	12.08.2005	N. Dreilich	Logos



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