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Data sheet: Short Circuit Proof Safety Isolating Transformers Type VB

Description ..... : Safety isolating transformer costructed and tested according to VDE 0570/EN 61 558, UL 506, CSA 22.2

Approvals ..... : According to table

Test voltage ..... PRI - SEC 5000 V, 50 Hz
SEC - SEC 250 V, 50 Hz

Short-circuit protection ..... : Inherently short-circuit proof

Construction ..... : Open design, potted in insulation housing

Safety class ..... : Prepared for class II equipment

Protection index ..... : Connections IP 00
Housing IP 65

Max ambient temperature .... : According to table

Insulation class of the
insulation system ..... : VDE (B= 130°C) ; UL+CSA Class 105 (A=105°C)

Input voltage ..... : 230 V

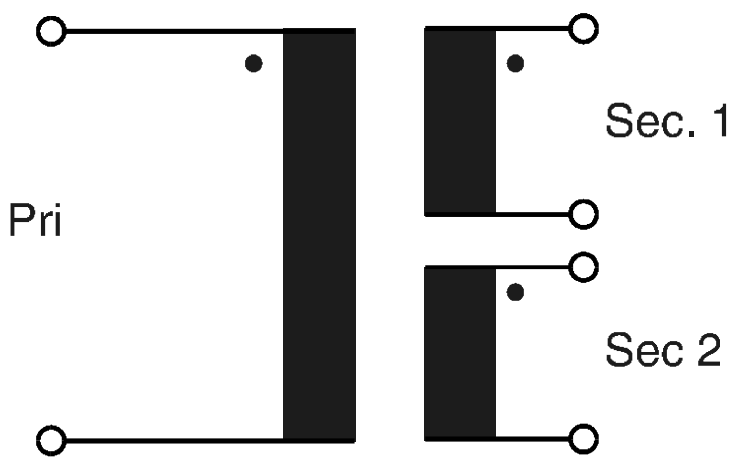
Frequency ..... : 50 - 60 Hz

Output voltage ..... : According to table

Connections ..... : Soldering pins for printed circuit board mounting

Packing ..... : Separately packed in cartons

Schematic plan :



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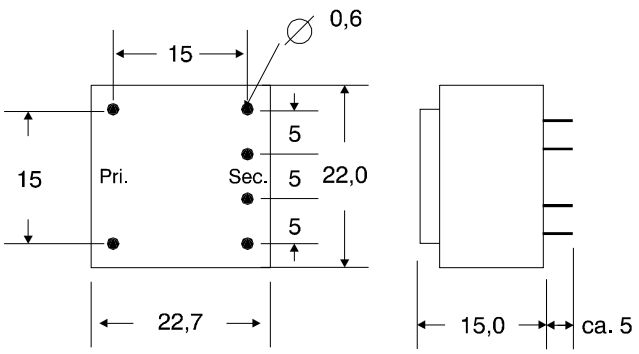
Description :

These VB type resin moulded safety isolating transformers, are inherently short-circuit proof so do not require external protection. The dual output can be connected in series or parallel.

Note :
* vacuum epoxy resin moulded (selfextinguishing to UL 94 V0)
* 100% tested
* Two chamber bobbin construction

Output power 0,35 VA Core-type EI 20/6,1
Height 15,0 mm Weight 24g
Ground area 22 mm x 22,7 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 0,35/2/6	2x6	2x0,029	1,2
VB 0,35/2/8	2x8	2x0,021	1,2
VB 0,35/2/9	2x9	2x0,019	1,2
VB 0,35/2/12	2x12	2x0,014	1,2
VB 0,35/2/15*	2x15	2x0,011	2
VB 0,35/2/18*	2x18	2x0,009	2
VB 0,35/2/24*	2x24	2x0,007	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

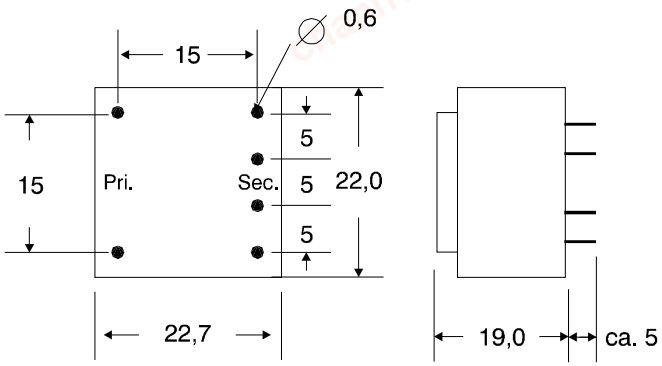
No load output voltage x Faktor = typ. 1,8
Core Losses typ. 1,8 W
Efficiency typ. 30 %
Ambient Temperature (ta) +70°C

Approvals (1) (2)

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Height 19,0 mm Weight 35g
Ground area 22 mm x 22,7 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 0,5/2/6	2x6	2x0,041	1,2
VB 0,5/2/8	2x8	2x0,031	1,2
VB 0,5/2/9	2x9	2x0,027	1,2
VB 0,5/2/12	2x12	2x0,020	1,2
VB 0,5/2/15*	2x15	2x0,016	2
VB 0,5/2/18*	2x18	2x0,013	2
VB 0,5/2/24*	2x24	2x0,010	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

No load output voltage x Faktor =	typ. 1,8
Core Losses	typ. 1,65 W
Efficiency	typ. 40 %
Ambient Temperature (ta)	+70°C

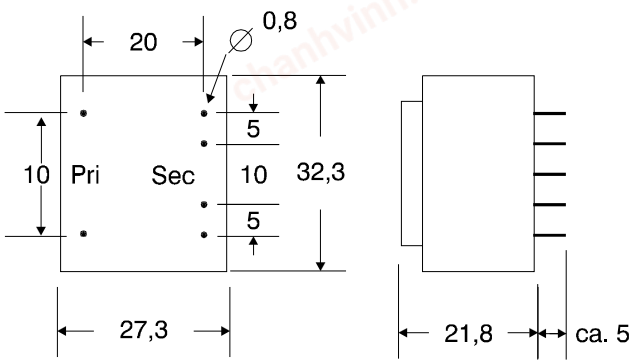
Approvals (1) (2)

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Height 21,8 mm Weight 72g
Ground area 32,3 mm x 27,3 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 1,0/2/6	2x6	2x0,083	1,2
VB 1,0/2/8	2x8	2x0,062	1,2
VB 1,0/2/9	2x9	2x0,055	1,2
VB 1,0/2/12	2x12	2x0,041	1,2
VB 1,0/2/15	2x15	2x0,033	1,2
VB 1,0/2/18*	2x18	2x0,027	2
VB 1,0/2/24*	2x24	2x0,020	2

According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1



No load output voltage x Faktor =	typ. 1,32
Core Losses	typ. 0,9 W
Efficiency	typ. 55 %
Ambient Temperature (ta)	+70°C

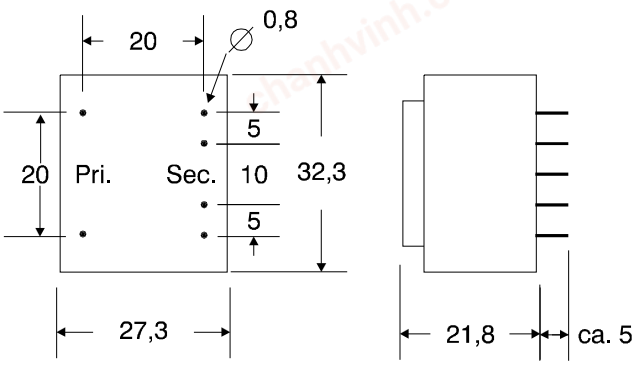
Approvals (1) (2)

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Height 23,8 mm Weight 84g
Ground area 32,3 mm x 27,3 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 1,2/2/6	2x6	2x0,10	1,2
VB 1,2/2/8	2x8	2x0,075	1,2
VB 1,2/2/9	2x9	2x0,066	1,2
VB 1,2/2/12	2x12	2x0,050	1,2
VB 1,2/2/15	2x15	2x0,040	1,2
VB 1,2/2/18*	2x18	2x0,033	2
VB 1,2/2/24*	2x24	2x0,025	2

According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1



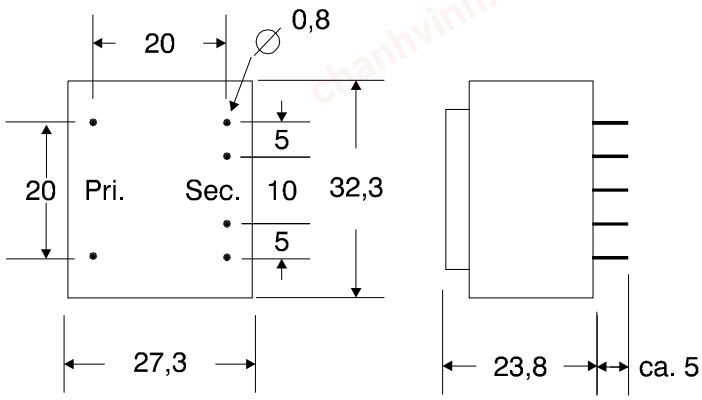
No load output voltage x Faktor =	typ. 1,31
Core Losses	typ. 1,0 W
Efficiency	typ. 57 %
Ambient Temperature (ta)	+70°C

Approvals (1) (2)

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Height 23,8 mm Weight 84g
Ground area 32,3 mm x 27,3 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 1,5/2/6	2x6	2x0,125	1,2
VB 1,5/2/8	2x8	2x0,093	1,2
VB 1,5/2/9	2x9	2x0,083	1,2
VB 1,5/2/12	2x12	2x0,062	1,2
VB 1,5/2/15	2x15	2x0,050	1,2
VB 1,5/2/18*	2x18	2x0,041	2
VB 1,5/2/24*	2x24	2x0,031	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

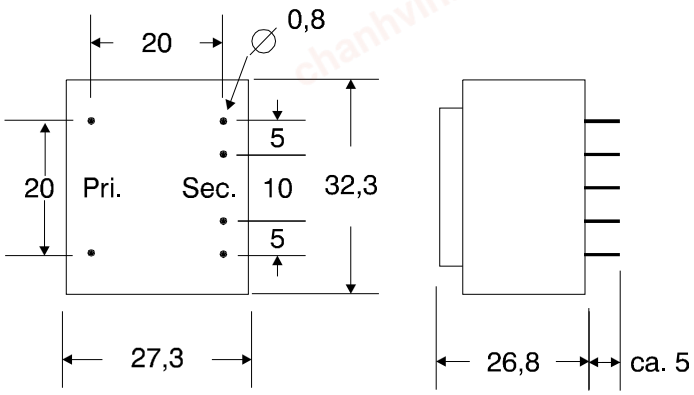
No load output voltage x Faktor =	typ. 1,39
Core Losses	typ. 1,0 W
Efficiency	typ. 57 %
Ambient Temperature (ta)	+70°C

Approvals (1) (2)

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Height 26,8 mm Weight 100g
Ground area 32,3 mm x 27,3 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 2,0/2/6	2x6	2x0,166	1,2
VB 2,0/2/8	2x8	2x0,125	1,2
VB 2,0/2/9	2x9	2x0,111	1,2
VB 2,0/2/12	2x12	2x0,083	1,2
VB 2,0/2/15	2x15	2x0,066	1,2
VB 2,0/2/18*	2x18	2x0,055	2
VB 2,0/2/24*	2x24	2x0,041	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

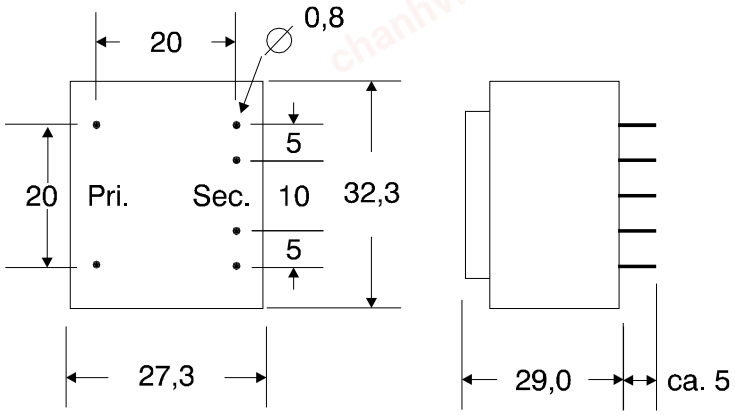
No load output voltage x Faktor =	typ. 1,64
Core Losses	typ. 1,10 W
Efficiency	typ. 52 %
Ambient Temperature (ta)	+70°C

Approvals (1) (2)

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Height 29,0 mm Weight 110g
Ground area 32,3 mm x 27,3 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 2,3/2/6	2x6	2x0,191	1,2
VB 2,3/2/8	2x8	2x0,143	1,2
VB 2,3/2/9	2x9	2x0,127	1,2
VB 2,3/2/12	2x12	2x0,095	1,2
VB 2,3/2/15	2x15	2x0,076	1,2
VB 2,3/2/18*	2x18	2x0,063	2
VB 2,3/2/24*	2x24	2x0,047	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

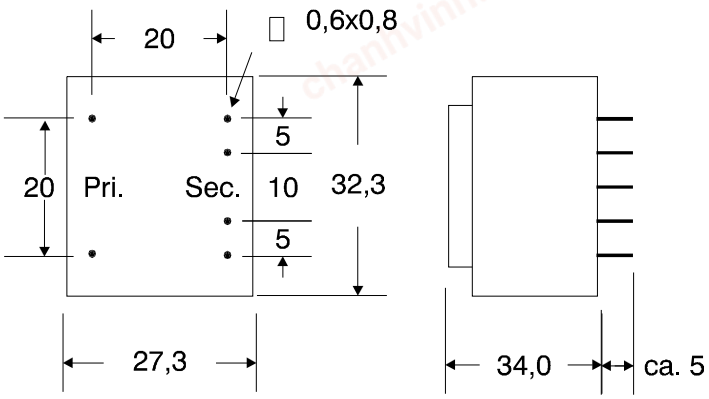
No load output voltage x Faktor =	typ. 1,43
Core Losses	typ. 1,1 W
Efficiency	typ. 59 %
Ambient Temperature (ta)	+70°C

Approvals (1) (2)

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Height 34,0 mm Weight 139g
Ground area 32,3 mm x 27,3 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 2,8/2/6	2x6	2x0,233	1,2
VB 2,8/2/8	2x8	2x0,175	1,2
VB 2,8/2/9	2x9	2x0,155	1,2
VB 2,8/2/12	2x12	2x0,116	1,2
VB 2,8/2/15	2x15	2x0,093	1,2
VB 2,8/2/18*	2x18	2x0,077	2
VB 2,8/2/24*	2x24	2x0,058	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

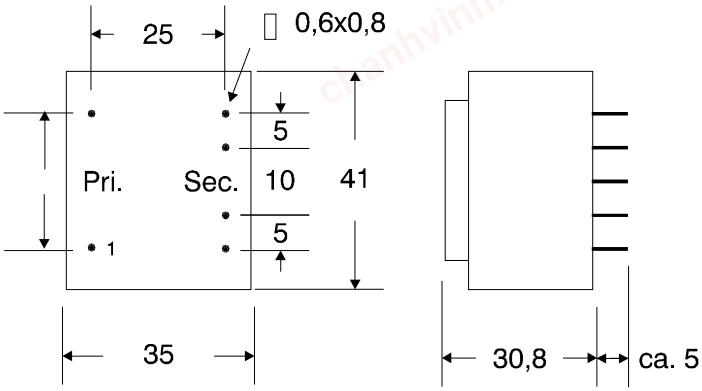
No load output voltage x Faktor =	typ. 1,31
Core Losses	typ. 0,9 W
Efficiency	typ. 57 %
Ambient Temperature (ta)	+70°C

Approvals (1) (2)

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Height 30,8 mm Weight 173g
Ground area 41,0 mm x 35,0 mm

Type	SEC rated output-voltage V	current A	Approvals
VB 3,2/2/6	2x6	2x0,266	1,2
VB 3,2/2/8	2x8	2x0,200	1,2
VB 3,2/2/9	2x9	2x0,177	1,2
VB 3,2/2/12	2x12	2x0,133	1,2
VB 3,2/2/15	2x15	2x0,106	1,2
VB 3,2/2/18*	2x18	2x0,088	2
VB 3,2/2/24*	2x24	2x0,066	2



According to VDE 0570/EN 61558-1 with EN 61558-2-6
* = according to VDE 0570/EN 61558-2-1

No load output voltage x Faktor =	typ. 1,57
Core Losses	typ. 0,8W
Efficiency	typ. 58 %
Ambient Temperature (ta)	+50°C

Approvals (1) (2)