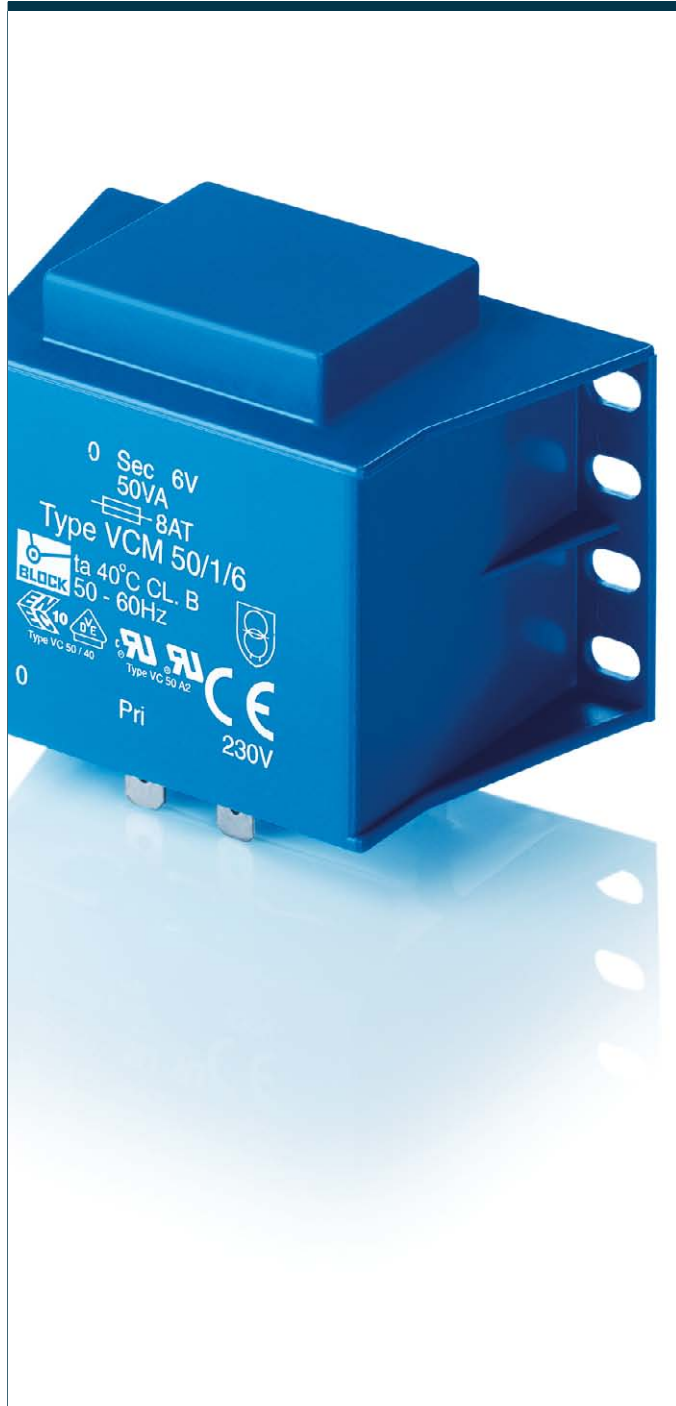


PCB transformer, mountable  
**VCM**



**General Data**

Rated input voltage 230 Vac
Rated output voltage 6 - 2 x 24 Vac
Rated power 5 - 50 VA
Insulation class B
Maximum ambient temperature 40 - 50 °C
Efficiency up to 87 %
Degree of protection IP 00

**Advantages**

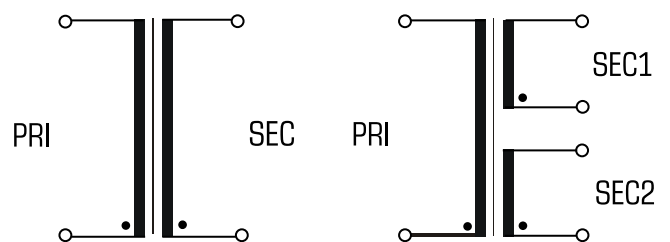
Minimum size at high output
Also with dual output voltage for series or parallel connection
Permanent corrosion protection, high insulation value and maximum electrical reliability thanks to XtraDenseFill resin encapsulation
Self-extinguishing potting material
Additional mounting option with tabs on the housing

**Applications**

As a mains transformer for adjustment of the voltage and simple electrical isolation.

As a safety isolating transformer for the safe electrical isolation of the input and output sides. The transformer is suitable for creating SELV and PELV circuits because of the limit on the output voltage.

**Sample application**



**Standards**



Mains transformer  
to: VDE 0570 Teil 2-1, DIN EN 61558-2-1, EN 61558-2-1, IEC 61558-2-1, UL 5085-1/-2, CSA 22.2 No.66

Isolating transformer  
to: VDE 0570 Part 2-4, DIN EN 61558-2-4, EN 61558-2-4, IEC 61558-2-4, UL 5085-1/-2, CSA 22.2 No.66

Safety isolating transformer  
to: VDE 0570 Part 2-6, DIN EN 61558-2-6, EN 61558-2-6, IEC 61558-2-6, UL 5085-1/-2, CSA 22.2 No.66

**Approvals**



VDE, UL 5085-1/-2, CSA 22.2 No.66

1.1

1.2

1.3

2.1

2.2

3.1

3.2

3.3

4.0

5.1

5.2

# 1 Transformers

## PCB transformers



## PCB transformer, mountable

### VCM



Typ	VCM 5,0/1/..	VCM 5,0/2/..	VCM 10/1/..	VCM 10/2/..	VCM 16/1/..	VCM 16/2/..
<b>Electrical data</b>						
<b>Input</b>						
Rated input voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
<b>Output</b>						
<b>Rated output voltage: Order no.</b>	6 Vac: VCM 5,0/1/6 8 Vac: VCM 5,0/1/8 9 Vac: VCM 5,0/1/9 12 Vac: VCM 5,0/1/12 15 Vac: VCM 5,0/1/15 18 Vac: VCM 5,0/1/18 24 Vac: VCM 5,0/1/24	2x6 Vac: VCM 5,0/2/6 2x8 Vac: VCM 5,0/2/8 2x9 Vac: VCM 5,0/2/9 2x12 Vac: VCM 5,0/2/12 2x15 Vac: VCM 5,0/2/15 2x18 Vac: VCM 5,0/2/18 2x24 Vac: VCM 5,0/2/24*	6 Vac: VCM 10/1/6 8 Vac: VCM 10/1/8 9 Vac: VCM 10/1/9 12 Vac: VCM 10/1/12 15 Vac: VCM 10/1/15 18 Vac: VCM 10/1/18 24 Vac: VCM 10/1/24	2x6 Vac: VCM 10/2/6 2x8 Vac: VCM 10/2/8 2x9 Vac: VCM 10/2/9 2x12 Vac: VCM 10/2/12 2x15 Vac: VCM 10/2/15 2x18 Vac: VCM 10/2/18 2x24 Vac: VCM 10/2/24*	6 Vac: VCM 16/1/6 8 Vac: VCM 16/1/8 9 Vac: VCM 16/1/9 12 Vac: VCM 16/1/12 15 Vac: VCM 16/1/15 18 Vac: VCM 16/1/18 24 Vac: VCM 16/1/24	2x6 Vac: VCM 16/2/6 2x8 Vac: VCM 16/2/8 2x9 Vac: VCM 16/2/9 2x12 Vac: VCM 16/2/12 2x15 Vac: VCM 16/2/15 2x18 Vac: VCM 16/2/18 2x24 Vac: VCM 16/2/24*
Rated Power	5 VA	5 VA	10 VA	10 VA	16 VA	16 VA
No-load voltage (app. x factor)	1.25	1.25	1.25	1.25	1.24	1.24
No-load loss (typ.)	1.50 W	1.50 W	1.60 W	1.60 W	1.80 W	1.80 W
Efficiency	68.0 %	68.0 %	74.0 %	74.0 %	76.0 %	76.0 %
<b>Standards</b>						
Classification	Safety isolating transformer	Safety isolating transformer *Mains transformer (without VDE mark)	Safety isolating transformer	Safety isolating transformer *Mains transformer (without VDE mark)	Safety isolating transformer	Safety isolating transformer *Mains transformer (without VDE mark)
<b>Approvals</b>						
Approvals	cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE
<b>Environment</b>						
Ambient temperature max.	50 °C	50 °C	40 °C	40 °C	40 °C	40 °C
<b>Safety and protection</b>						
Type	Encapsulated	Encapsulated	Encapsulated	Encapsulated	Encapsulated	Encapsulated
Insulation class	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	II	II	II	II	II	II
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
<b>Order numbers</b>						
Order Number	see output voltage	see output voltage	see output voltage	see output voltage	see output voltage	see output voltage



## PCB transformer, mountable VCM



Typ	VCM 25/1/..	VCM 25/2/..	VCM 36/1/..	VCM 36/2/..	VCM 50/1/..	VCM 50/2/..
<b>Electrical data</b>						
<b>Input</b>						
Rated input voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
<b>Output</b>						
<b>Rated output voltage: Order no.</b>	6 Vac: VCM 25/1/6 8 Vac: VCM 25/1/8 9 Vac: VCM 25/1/9 12 Vac: VCM 25/1/12 15 Vac: VCM 25/1/15 18 Vac: VCM 25/1/18 24 Vac: VCM 25/1/24	2x6 Vac: VCM 25/2/6 2x8 Vac: VCM 25/2/8 2x9 Vac: VCM 25/2/9 2x12 Vac: VCM 25/2/12 2x15 Vac: VCM 25/2/15 2x18 Vac: VCM 25/2/18 2x24 Vac: VCM 25/2/24*	6 Vac: VCM 36/1/6 8 Vac: VCM 36/1/8 9 Vac: VCM 36/1/9 12 Vac: VCM 36/1/12 15 Vac: VCM 36/1/15 18 Vac: VCM 36/1/18 24 Vac: VCM 36/1/24	2x6 Vac: VCM 36/2/6 2x8 Vac: VCM 36/2/8 2x9 Vac: VCM 36/2/9 2x12 Vac: VCM 36/2/12 2x15 Vac: VCM 36/2/15 2x18 Vac: VCM 36/2/18 2x24 Vac: VCM 36/2/24**	6 Vac: VCM 50/1/6 8 Vac: VCM 50/1/8 9 Vac: VCM 50/1/9 12 Vac: VCM 50/1/12 15 Vac: VCM 50/1/15 18 Vac: VCM 50/1/18 24 Vac: VCM 50/1/24	2x6 Vac: VCM 50/2/6 2x8 Vac: VCM 50/2/8 2x9 Vac: VCM 50/2/9 2x12 Vac: VCM 50/2/12 2x15 Vac: VCM 50/2/15 2x18 Vac: VCM 50/2/18 2x24 Vac: VCM 50/2/24**
Rated Power	25 VA	25 VA	36 VA	36 VA	50 VA	50 VA
No-load voltage (app. x factor)	1.12	1.12	1.11	1.11	1.09	1.09
No-load loss (typ.)	2.50 W	2.50 W	2.60 W	2.60 W	3.80 W	3.80 W
Efficiency	82.0 %	82.0 %	83.0 %	83.0 %	87.0 %	87.0 %
<b>Standards</b>						
Classification	Safety isolating transformer	Safety isolating transformer *Mains transformer (without VDE mark)	Safety isolating transformer	Safety isolating transformer **isolating transformer (without VDE mark)	Safety isolating transformer	Safety isolating transformer **isolating transformer (without VDE mark)
<b>Approvals</b>						
Approvals	cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE
<b>Environment</b>						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
<b>Safety and protection</b>						
Type	Encapsulated	Encapsulated	Encapsulated	Encapsulated	Encapsulated	Encapsulated
Insulation class	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105	VDE=B, UL=class 105
Protection index	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
Safety class (prepared)	II	II	II	II	II	II
Short circuit strength	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof
<b>Order numbers</b>						
Order Number	see output voltage	see output voltage	see output voltage	see output voltage	see output voltage	see output voltage

1.1

1.2

1.3

2.1

2.2

3.1

3.2

3.3

4.0

5.1

5.2



### PCB transformer, mountable **VCM**



Mechanical data	Typ	Fixing method	Terminals	Pin (ø)	Core type	Weight	Dimension picture (in mm)															
								A	B	C	D	E	F	G	H	J	K	L	M			
	VCM 5,0/1/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 42/14,8	0.19 kg	1	64	37	32.3	55	18.5	5	-	25	15	25	4.2	-			
	VCM 5,0/2/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 42/14,8	0.19 kg	2	64	37	32.3	55	18.5	5	5	25	15	25	4.2	-			
	VCM 10/1/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 48/16,8	0.28 kg	1	69	42.2	34.6	60	21.1	5	-	25	15	27.5	4.2	-			
	VCM 10/2/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 48/16,8	0.28 kg	2	69	42.2	34.6	60	21.1	5	5	25	15	27.5	4.2	-			
	VCM 16/1/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 54/18,8	0.42 kg	3	75.2	47.1	39	65	37.5	5	-	30	20	30	4.2	-			
	VCM 16/2/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 54/18,8	0.42 kg	4	75.2	47.1	39	65	37.5	5	5	30	20	30	4.2	23.3			
	VCM 25/1/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 60/25,5	0.61 kg	2	81.2	55	49.2	72.5	43.5	6.5	-	30	20	32.5	4.2	-			
	VCM 25/2/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 60/25,5	0.61 kg	4	81.2	55	49.2	72.5	43.5	6.5	5	30	20	32.5	4.2	26			
	VCM 36/1/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 66/23,0	0.75 kg	2	87.2	60	48.5	77.5	47.5	5	-	35	25	35	4.2	-			
	VCM 36/2/..	Fixing points on the case	Pins for PCB	0.8 mm	EI 66/23,0	0.75 kg	4	87.2	61	48.5	77.5	47.5	5	5	35	20	35	4.2	31			
	VCM 50/1/..	Fixing points on the case	Quick connect terminals	PRI 4.8 x 0.8 mm, SEC 6.3 x 0.8 mm	EI 66/34,5	0.99 kg	5	94	61	58.5	82	37.5	9	-	35	15	35	8.3	4.8			
	VCM 50/2/..	Fixing points on the case	Quick connect terminals	PRI 4.8 x 0.8 mm, SEC 6.3 x 0.8 mm	EI 66/34,5	0.99 kg	6	94	61	58.5	82	37.5	9	10	35	15	35	8.3	4.8			

### Dimension pictures

