

PCB transformer

VR



General Data

Rated input voltage 230 Vac
Rated output voltage 8 - 2 x 18 Vac
Rated power 4.5 - 30 VA
Insulation class B
Maximum ambient temperature 40 °C
Efficiency up to 84 %
Degree of protection IP 00

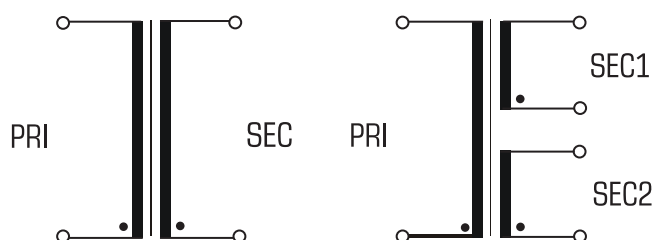
Advantages

Minimum size at high output
Also with double 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
Space saving installation thanks to additional screw mounting in the base plate

Applications

Safety 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



Safety isolating transformer
to: VDE 0570 Teil 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

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Electrical data	Typ	VR 22/1/..	VR 22/2/..	VR 30/1/..	VR 30/2/..		
	Input						
	Rated input voltage	230 Vac	230 Vac	230 Vac	230 Vac		
	Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz		
	Output						
	Rated output voltage: Order no.	8 Vac: VR 22/1/8 9 Vac: VR 22/1/9 12 Vac: VR 22/1/12 15 Vac: VR 22/1/15 18 Vac: VR 22/1/18 24 Vac: VR 22/1/24	2x8 Vac: VR 22/2/8 2x9 Vac: VR 22/2/9 2x12 Vac: VR 22/2/12 2x15 Vac: VR 22/2/15 2x18 Vac: VR 22/2/18	8 Vac: VR 30/1/8 9 Vac: VR 30/1/9 12 Vac: VR 30/1/12 15 Vac: VR 30/1/15 18 Vac: VR 30/1/18 24 Vac: VR 30/1/24	2x8 Vac: VR 30/2/8 2x9 Vac: VR 30/2/9 2x12 Vac: VR 30/2/12 2x15 Vac: VR 30/2/15 2x18 Vac: VR 30/2/18		
	Rated Power	22 VA	22 VA	30 VA	30 VA		
	No-load voltage (app. x factor)	1.15	1.15	1.11	1.11		
	No-load loss (typ.)	2.40 W	2.40 W	2.50 W	2.50 W		
	Efficiency	80.0 %	80.0 %	84.0 %	84.0 %		
Standards							
Classification		Safety isolating transformer	Safety isolating transformer	Safety isolating transformer	Safety isolating transformer		
Approvals							
Approvals		cURus, VDE	cURus, VDE	cURus, VDE	cURus, VDE		
Environment							
Ambient temperature max.		40 °C	40 °C	40 °C	40 °C		
Safety and protection							
Type		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		
Protection index		IP 00	IP 00	IP 00	IP 00		
Safety class (prepared)		II	II	II	II		
Short circuit strength		non-short-circuit proof	non-short-circuit proof	non-short-circuit proof	non-short-circuit proof		
Order numbers							
Order Number		see rated output voltage	see rated output voltage	see rated output voltage	see rated output voltage		

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Mechanical data	Typ	Fixing method	Terminals	Pin (a)	Core type	Weight	Dimension picture (in mm)	A	B	C	D	E	F	G	H	I	J	K
30	VR 4,5/1/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 42/14,8	0.19 kg	1	44	37	33	25	25	15	-	5	35	28	2.5
	VR 4,5/2/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 42/14,8	0.19 kg	2	44	37	33	25	25	15	5	5	35	28	2.5
	VR 7,5/1/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 48/16,8	0.28 kg	1	51	43	36	25	27.5	15	-	5	40	32	2.5
	VR 7,5/2/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 48/16,8	0.28 kg	2	51	43	36	25	27.5	15	5	5	40	32	2.5
	VR 13/1/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 54/18,8	0.42 kg	1	56	47	40	30	30	20	-	5	47.5	37.5	2.5
	VR 13/2/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 54/18,8	0.42 kg	2	56	47	40	30	30	20	5	5	47.5	37.5	2.5
	VR 22/1/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 60/21	0.57 kg	1	64	54	46	30	32.5	10	-	5	52.5	40	2.5
	VR 22/2/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 60/21	0.57 kg	2	64	54	46	30	32.5	10	10	5	52.5	40	2.5
	VR 30/1/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 60/30,5	0.78 kg	1	64	54	55	30	32.5	10	-	5	52.5	40	2.5
	VR 30/2/..	Additional fixing by self-tapping screws	Pins for PCB	0.8 mm	EI 60/30,5	0.78 kg	2	64	54	55	30	32.5	10	10	5	52.5	40	2.5

Dimension pictures

