

Toroidal transformer RKD



General Data

Rated input voltage	2 x 115 Vac
Rated output voltage	2 x 12 - 2 x 115 Vac
Power	15 - 3000 VA
Insulation class	B
Maximum ambient temperature	40 °C
Efficiency	up to 98 %
Degree of protection	IP 00

Advantages

Minimum size at high output
Low weight
Double input voltage for series or parallel connection
Double output voltage for series or parallel connection
Minimal no-load losses
Outstanding temperature behaviour thanks to low magnetic leakage field
Very low noise field

Applications

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

As an isolating transformer for the safe electrical isolation of the input and output sides. The transformer may be used to set up protective separation as a protective measure in accordance with VDE 0100.

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.

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

Certifications



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



Toroidal transformer **RKD**

Type	RKD 15/..	RKD 20/..	RKD 30/..	RKD 40/..
Electrical data				
Input				
Rated input Voltage	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output				
Rated output voltage: Order no.	2x12 Vac: RKD 15/2x12 2x15 Vac: RKD 15/2x15 2x18 Vac: RKD 15/2x18	2x12 Vac: RKD 20/2x12 2x15 Vac: RKD 20/2x15 2x18 Vac: RKD 20/2x18 2x24 Vac: RKD 20/2x24**	2x12 Vac: RKD 30/2x12 2x15 Vac: RKD 30/2x15 2x18 Vac: RKD 30/2x18 2x24 Vac: RKD 30/2x24*	2x12 Vac: RKD 40/2x12 2x15 Vac: RKD 40/2x15 2x18 Vac: RKD 40/2x18 2x24 Vac: RKD 40/2x24*
Rated Power	15 VA	20 VA	30 VA	40 VA
No-load voltage (app. x factor)	1.15	1.30	1.16	1.18
No-load loss (typ.)	0.30 W	0.20 W	0.45 W	0.40 W
Efficiency	83 %	74 %	82 %	84 %
Standards				
Classification	Safety isolating transformer	Safety isolating transformer **Mains transformer	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer
Approvals				
Approvals	cURus	cURus	cURus	cURus
Environment				
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C
Safety and protection				
Type	open type	open type	open type	open type
Class of Insulation System	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
Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz
Order numbers				
Order Number	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage

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Toroidal transformer RKD

		RKD 50/..	RKD 60/..	RKD 80/..	RKD 100/..	
Electrical data	Type					
	Input					
	Rated input Voltage	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	
	Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	
	Output					
	Rated output voltage: Order no.	2x12 Vac: RKD 50/2x12 2x15 Vac: RKD 50/2x15 2x18 Vac: RKD 50/2x18 2x24 Vac: RKD 50/2x24*	2x12 Vac: RKD 60/2x12 2x15 Vac: RKD 60/2x15 2x18 Vac: RKD 60/2x18 2x24 Vac: RKD 60/2x24*	2x12 Vac: RKD 80/2x12 2x15 Vac: RKD 80/2x15 2x18 Vac: RKD 80/2x18 2x24 Vac: RKD 80/2x24*	2x12 Vac: RKD 100/2x12 2x15 Vac: RKD 100/2x15 2x18 Vac: RKD 100/2x18 2x24 Vac: RKD 100/2x24*	
	Rated Power	50 VA	60 VA	80 VA	100 VA	
	No-load voltage (app. x factor)	1.18	1.14	1.12	1.10	
	No-load loss (typ.)	0.40 W	0.70 W	0.90 W	0.90 W	
	Efficiency	83 %	86 %	88 %	89 %	
	Standards					
	Classification	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer	
	Approvals					
	Approvals	cURus	cURus	cURus	cURus	
	Environment					
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	
	Safety and protection					
	Type	open type	open type	open type	open type	
	Class of Insulation System	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		
Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz		
Order numbers						
Order Number	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage		



Toroidal transformer **RKD**

Type	RKD 120/..	RKD 160/..	RKD 200/..	RKD 225/..
Electrical data				
Input				
Rated input Voltage	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output				
Rated output voltage: Order no.	2x12 Vac: RKD 120/2x12 2x15 Vac: RKD 120/2x15 2x18 Vac: RKD 120/2x18 2x24 Vac: RKD 120/2x24*	2x12 Vac: RKD 160/2x12 2x15 Vac: RKD 160/2x15 2x18 Vac: RKD 160/2x18 2x24 Vac: RKD 160/2x24*	2x12 Vac: RKD 200/2x12 2x15 Vac: RKD 200/2x15 2x18 Vac: RKD 200/2x18 2x24 Vac: RKD 200/2x24*	2x12 Vac: RKD 225/2x12 2x15 Vac: RKD 225/2x15 2x18 Vac: RKD 225/2x18 2x24 Vac: RKD 225/2x24*
Rated Power	120 VA	160 VA	200 VA	225 VA
No-load voltage (app. x factor)	1.09	1.08	1.07	1.07
No-load loss (typ.)	0.90 W	1.10 W	1.50 W	1.50 W
Efficiency	91 %	91 %	92 %	93 %
Standards				
Classification	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer
Approvals				
Approvals	cURus	cURus	cURus	cURus
Environment				
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C
Safety and protection				
Type	open type	open type	open type	open type
Class of Insulation System	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
Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz
Order numbers				
Order Number	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage

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Toroidal transformer RKD

		RKD 250/..	RKD 300/..	RKD 330/..	RKD 400/..	
Electrical data	Type					
	Input					
	Rated input Voltage	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	
	Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	
	Output					
	Rated output voltage: Order no.	2x12 Vac: RKD 250/2x12 2x18 Vac: RKD 250/2x18 2x24 Vac: RKD 250/2x24* 2x30 Vac: RKD 250/2x30*	2x12 Vac: RKD 300/2x12 2x18 Vac: RKD 300/2x18 2x24 Vac: RKD 300/2x24*	2x18 Vac: RKD 330/2x18	2x18 Vac: RKD 400/2x18 2x24 Vac: RKD 400/2x24* 2x30 Vac: RKD 400/2x30*	
	Rated Power	250 VA	300 VA	330 VA	400 VA	
	No-load voltage (app. x factor)	1.05	1.06	1.05	1.05	
	No-load loss (typ.)	2.10 W	2.80 W	2.80 W	3.10 W	
	Efficiency	93 %	93 %	94 %	94 %	
	Standards					
	Classification	Safety isolating transformer *Isolating transformer	Safety isolating transformer *Isolating transformer	Safety isolating transformer	Safety isolating transformer *Isolating transformer	
	Approvals					
	Approvals	cURus	cURus	cURus	cURus	
	Environment					
	Ambient temperature max.	40 °C	40 °C	40 °C	40 °C	
	Safety and protection					
Type	open type	open type	open type	open type		
Class of Insulation System	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		
Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz		
Order numbers						
Order Number	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage		



Toroidal transformer **RKD**

Type	RKD 500/..	RKD 625/..	RKD 800/..	RKD 1000/..
Electrical data				
Input				
Rated input Voltage	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac
Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Output				
Rated output voltage: Order no.	2x24 Vac: RKD 500/2x24 2x30 Vac: RKD 500/2x30 2x35 Vac: RKD 500/2x35	2x30 Vac: RKD 625/2x30 2x115 Vac: RKD 625/2x115	2x40 Vac: RKD 800/2x40 2x115 Vac: RKD 800/2x115	2x50 Vac: RKD 1000/2x50 2x115 Vac: RKD 1000/2x115
Rated Power	500 VA	625 VA	800 VA	1000 VA
No-load voltage (app. x factor)	1.04	1.04	1.04	1.02
No-load loss (typ.)	3.40 W	4.90 W	5.30 W	6.50 W
Efficiency	95 %	95 %	96 %	96 %
Standards				
Classification	Isolating transformer	Isolating transformer	Isolating transformer	Isolating transformer
Approvals				
Approvals	cURus	cURus	cURus	cURus
Environment				
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C
Safety and protection				
Type	open type	open type	open type	open type
Class of Insulation System	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
Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz
Order numbers				
Order Number	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage

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Toroidal transformer **RKD**

		RKD 1200/..	RKD 1600/..	RKD 2000/..	RKD 3000/..	
Electrical data	Type					
	Input					
	Rated input Voltage	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	2 x 115 Vac	
	Rated frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	
	Output					
	Rated output voltage: Order no.	2x115 Vac: RKD 1200/2x115	2x115 Vac: RKD 1600/2x115	2x115 Vac: RKD 2000/2x115	2x115 Vac: RKD 3000/2x115	
	Rated Power	1200 VA	1600 VA	2000 VA	3000 VA	
	No-load voltage (app. x factor)	1.03	1.02	1.02	1.01	
	No-load loss (typ.)	7.50 W	9.60 W	10.40 W	12.60 W	
	Efficiency	96 %	97 %	97 %	98 %	
Standards						
Classification	Isolating transformer	Isolating transformer	Isolating transformer	Isolating transformer		
Approvals						
Approvals	cURus	cURus	cURus	cURus		
Environment						
Ambient temperature max.	40 °C	40 °C	40 °C	40 °C		
Safety and protection						
Type	open type	open type	open type	open type		
Class of Insulation System	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		
Test voltage	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz	4000 Vac, 50 Hz		
Order numbers						
Order Number	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage	refer to rated output voltage		



Toroidal transformer **RKD**

Typ	Fixing method	Terminals	Weight	Major diameter Ø	Outside diameter in the area of the wire lead	
RKD 15/..	Mounting kit, M5 bolt	Connecting leads, 200 mm	0.32 kg	59 mm	62 mm	30 mm
RKD 20/..	Mounting kit, M5 bolt	Connecting leads, 200 mm	0.35 kg	61 mm	63 mm	32 mm
RKD 30/..	Mounting kit, M5 bolt	Connecting leads, 200 mm	0.47 kg	68 mm	70 mm	31 mm
RKD 40/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	0.56 kg	75 mm	77 mm	34 mm
RKD 50/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	0.70 kg	77 mm	79 mm	39 mm
RKD 60/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	0.75 kg	80 mm	83 mm	38 mm
RKD 80/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	1.08 kg	88 mm	91 mm	43 mm
RKD 100/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	1.19 kg	92 mm	94 mm	45 mm
RKD 120/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	1.41 kg	94 mm	96 mm	45 mm
RKD 160/..	Mounting kit, M6 bolt	Connecting leads, 200 mm	1.73 kg	105 mm	107 mm	50 mm
RKD 200/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	2.16 kg	114 mm	116 mm	53 mm
RKD 225/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	2.35 kg	115 mm	117 mm	54 mm
RKD 250/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	2.52 kg	114 mm	117 mm	54 mm
RKD 300/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	3.01 kg	125 mm	127 mm	64 mm
RKD 330/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	3.30 kg	124 mm	127 mm	65 mm
RKD 400/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	4.05 kg	128 mm	131 mm	75 mm
RKD 500/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	4.80 kg	140 mm	143 mm	66 mm
RKD 625/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	6.10 kg	152 mm	154 mm	74 mm
RKD 800/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	7.00 kg	170 mm	172 mm	72 mm
RKD 1000/..	Mounting kit, M8 bolt	Connecting leads, 200 mm	8.25 kg	168 mm	170 mm	85 mm
RKD 1200/..	Remaining hole casting, with integrated mounting holes	Connecting leads, 200 mm	9.80 kg	167 mm	170 mm	100 mm
RKD 1600/..	Remaining hole casting, with integrated mounting holes	Connecting leads, 200 mm	13.50 kg	202 mm	205 mm	100 mm
RKD 2000/..	Remaining hole casting, with integrated mounting holes	Connecting leads, 200 mm	15.00 kg	206 mm	209 mm	108 mm
RKD 3000/..	Remaining hole casting, with integrated mounting holes	Connecting leads, 200 mm	21.00 kg	215 mm	225 mm	130 mm

Mechanical data

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