

## power table DC/DC-transducer RM 4 - RM 14



- \* application as SMPS, open, impregnated or potted
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated or potted transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until  $t_a$  105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C)  
copper foil winding, polyimide insulated wires (3-times bandage)

maximum power as flyback-, forward- or push-pull working type guide number on practical experience and computer based model calculations power table is for $t_a$ 40°C / B, impregnated with N41 / N67 (standard)				
type	frequency	flyback	forward	push-pull
RM 4	25 kHz	0,5 VA	0,6 VA	1,0 VA
	50 kHz	0,8 VA	1,0 VA	1,6 VA
	100 kHz	1,2 VA	1,6 VA	2,0 VA
RM 5	25 kHz	2,6 VA	3,2 VA	5,0 VA
	50 kHz	3,8 VA	4,8 VA	7,5 VA
	100 kHz	5,5 VA	6,6 VA	10,5 VA
RM 6	25 kHz	5,5 VA	6,5 VA	10,0 VA
	50 kHz	8,2 VA	10,0 VA	15,0 VA
	100 kHz	12,5 VA	15,0 VA	22,0 VA
RM 7	25 kHz	7,5 VA	9,0 VA	14,0 VA
	50 kHz	11,5 VA	14,0 VA	20,0 VA
	100 kHz	17,0 VA	21,0 VA	30,0 VA
RM 8	25 kHz	10,0 VA	12,5 VA	17,0 VA
	50 kHz	15,0 VA	18,0 VA	28,0 VA
	100 kHz	22,0 VA	27,0 VA	37,5 VA
RM 10	25 kHz	20,0 VA	25,0 VA	34,0 VA
	50 kHz	28,0 VA	34,0 VA	52,0 VA
	100 kHz	42,0 VA	50,0 VA	70,0 VA
RM 12	25 kHz	42,0 VA	55,0 VA	70,0 VA
	50 kHz	60,0 VA	70,0 VA	110,0 VA
	100 kHz	90,0 VA	105,0 VA	150,0 VA
RM 14	25 kHz	70,0 VA	90,0 VA	115,0 VA
	50 kHz	100,0 VA	115,0 VA	180,0 VA
	100 kHz	150,0 VA	175,0 VA	250,0 VA

9810

technical changes reserved

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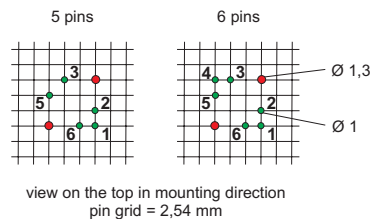
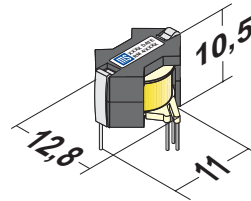
info@ms-transformers.de

www.ms-transformers.de

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type RM 4

0,5 ... 2,0 VA

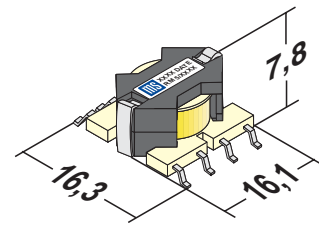
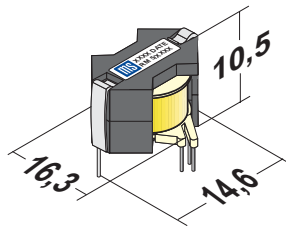


RM 4	maximum power as flyback-, forward- or push-pull working type guide number on practical experience and computer based model calculations power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)			
	frequency	flyback	forward	push-pull
	25 kHz	0,5 VA	0,6 VA	1,0 VA
	50 kHz	0,8 VA	1,0 VA	1,6 VA
	100 kHz	1,2 VA	1,6 VA	2,0 VA

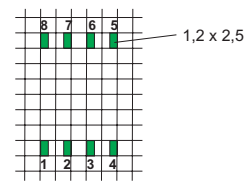
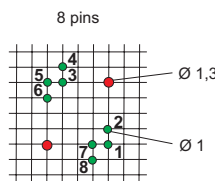
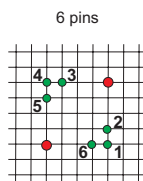
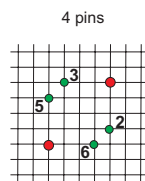
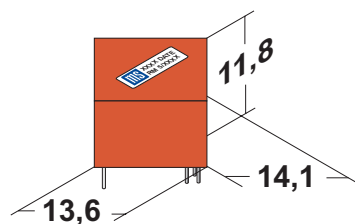
- \* application as DC/DC-transducer, open or impregnated
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz)  
on your application, also for multiple output voltages
- \* optional: UL-insulating system class B for impregnated transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C)  
copper foil winding, polyimid insulated wires (3-times bandage)

# type RM 5

2,6 ... 10 VA



SMD



view on the top in mounting direction  
pin grid = 2,54 mm

RM 5

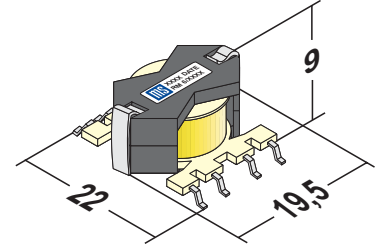
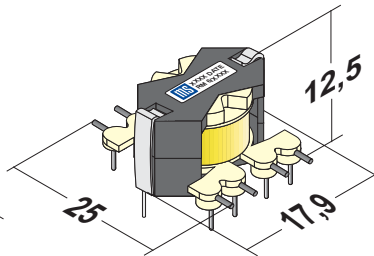
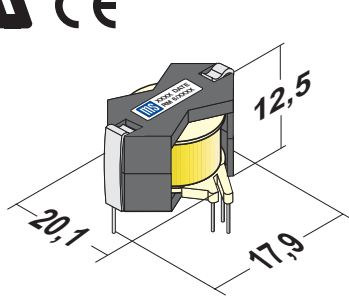
maximum power as flyback-, forward- or push-pull working type  
guide number on practical experience and computer based model calculations  
power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)

frequency	flyback	forward	push-pull
25 kHz	2,6 VA	3,2 VA	5,0 VA
50 kHz	3,8 VA	4,8 VA	7,5 VA
100 kHz	5,5 VA	6,6 VA	10,0 VA

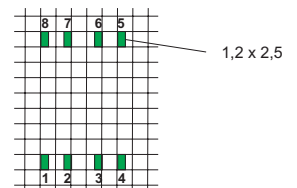
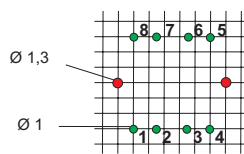
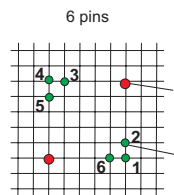
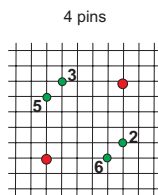
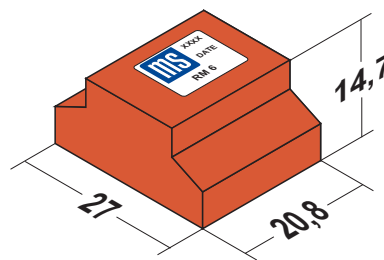
- \* application as DC/DC-transducer, open, impregnated or potted
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated or potted transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C) copper foil winding, polyimid insulated wires (3-times bandage)

# type RM 6

5,5 ... 22 VA



SMD



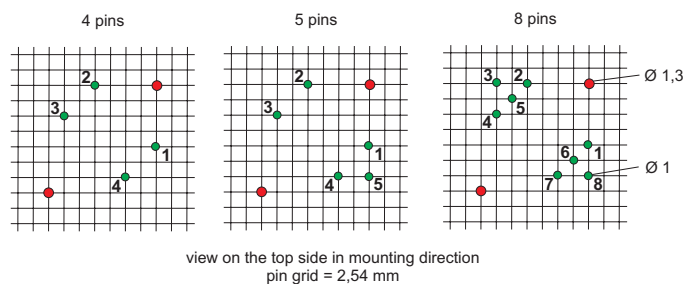
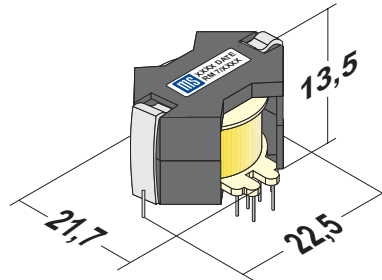
view on the top side in mounting direction  
pin grid = 2,54 mm

<b>RM 6</b>	<b>maximum power as flyback-, forward- or push-pull working type</b> <b>guide number on practical experience and computer based model calculations</b> <b>power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)</b>			
	<b>frequency</b>	<b>flyback</b>	<b>forward</b>	<b>push-pull</b>
	25 kHz	5,5 VA	6,5 VA	10,0 VA
	50 kHz	8,2 VA	10,0 VA	15,0 VA
	100 kHz	12,5 VA	15,0 VA	22,0 VA

- \* application as DC/DC-transducer, open, impregnated or potted
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated or potted transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C) copper foil winding, polyimid insulated wires (3-times bandage)

type RM 7

7,5 ... 30 VA

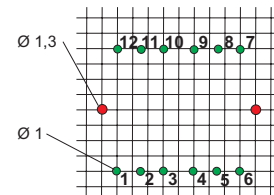
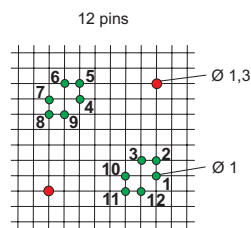
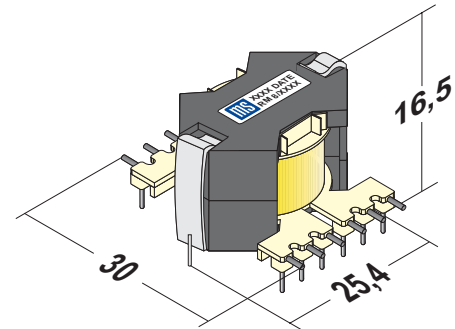
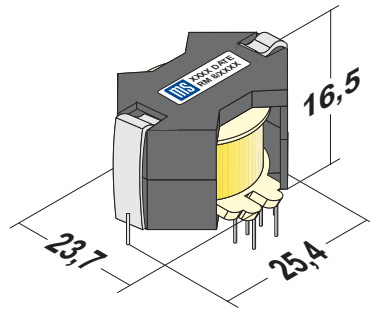


RM 7	maximum power as flyback-, forward- or push-pull working type guide number on practical experience and computer based model calculations power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)			
	frequency	flyback	forward	push-pull
	25 kHz	7,5 VA	9,0 VA	14,0 VA
	50 kHz	11,5 VA	14,0 VA	20,0 VA
	100 kHz	17,0 VA	21,0 VA	30,0 VA

- \* application as DC/DC-transducer, open or impregnated
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz)  
on your application, also for multiple output voltages
- \* optional: UL-insulating system class B for impregnated transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C)  
copper foil winding, polyimid insulated wires (3-times bandage)

type RM 8

10 ... 37,5 VA



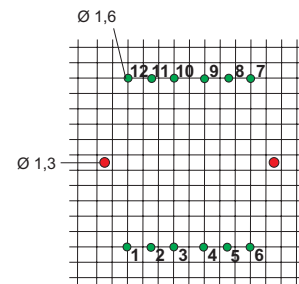
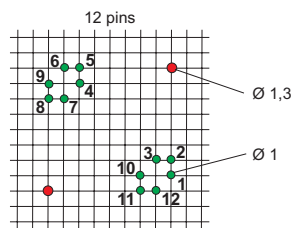
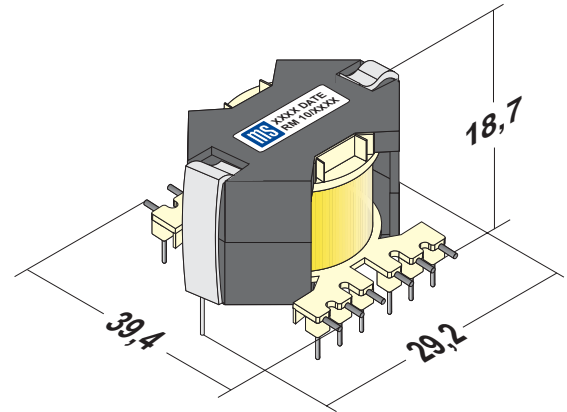
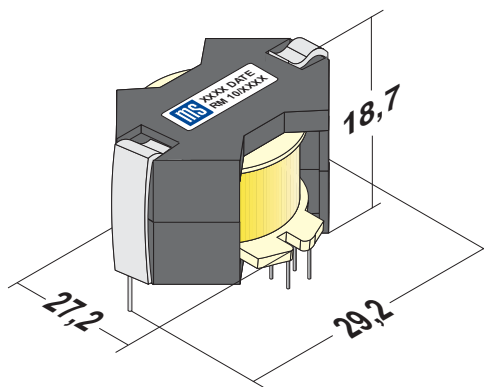
view on the top side in mounting direction  
pin grid = 2,54 mm

RM 8	maximum power as flyback-, forward- or push-pull working type guide number on practical experience and computer based model calculations power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)			
	frequency	flyback Flyback	forward	push-pull
	25 kHz	10,0 VA	12,5 VA	17,0 VA
	50 kHz	15,0 VA	18,0 VA	28,0 VA
100 kHz	22,0 VA	27,0 VA	37,5 VA	

- \* application as DC/DC-transducer, open, impregnated
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C) copper foil winding, polyimid insulated wires (3-times bandage)

# type RM 10

# 20 ... 70 VA



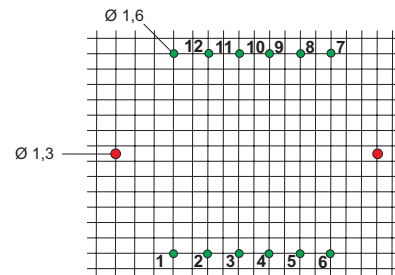
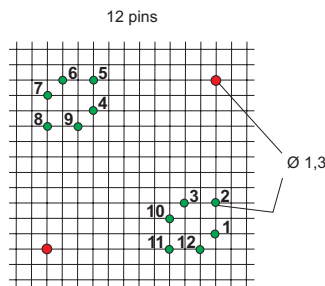
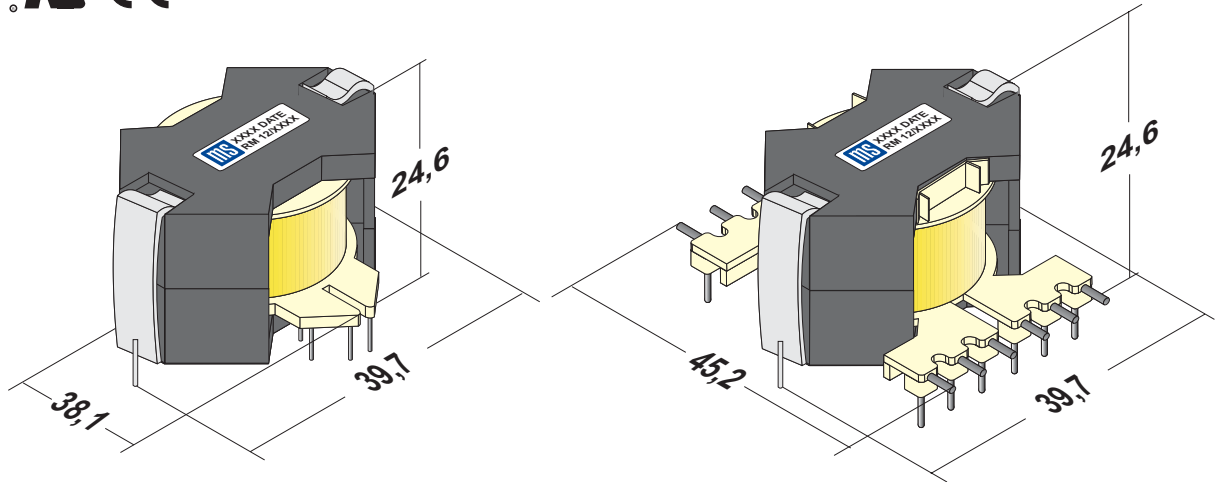
view on the top side in mounting direction  
pin grid = 2,54 mm

RM 10	<b>maximum power as flyback-, forward- or push-pull working type</b> <b>guide number on practical experience and computer based model calculations</b> <b>power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)</b>			
	frequency	flyback	forward	push-pull
	25 kHz	20 VA	25 VA	34 VA
	50 kHz	28 VA	34 VA	52 VA
	100 kHz	42 VA	50 VA	70 VA

- \* application as DC/DC-transducer, open or impregnated
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C) copper foil winding, polyimid insulated wires (3-times bandage)

# type RM 12

42 ... 150 VA



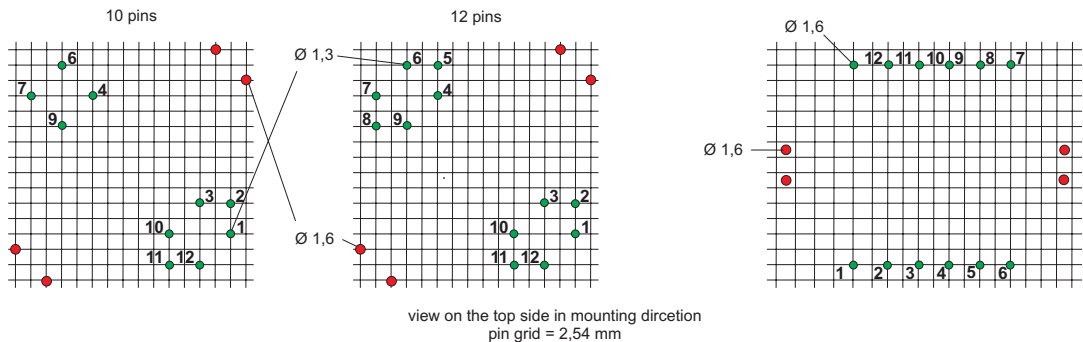
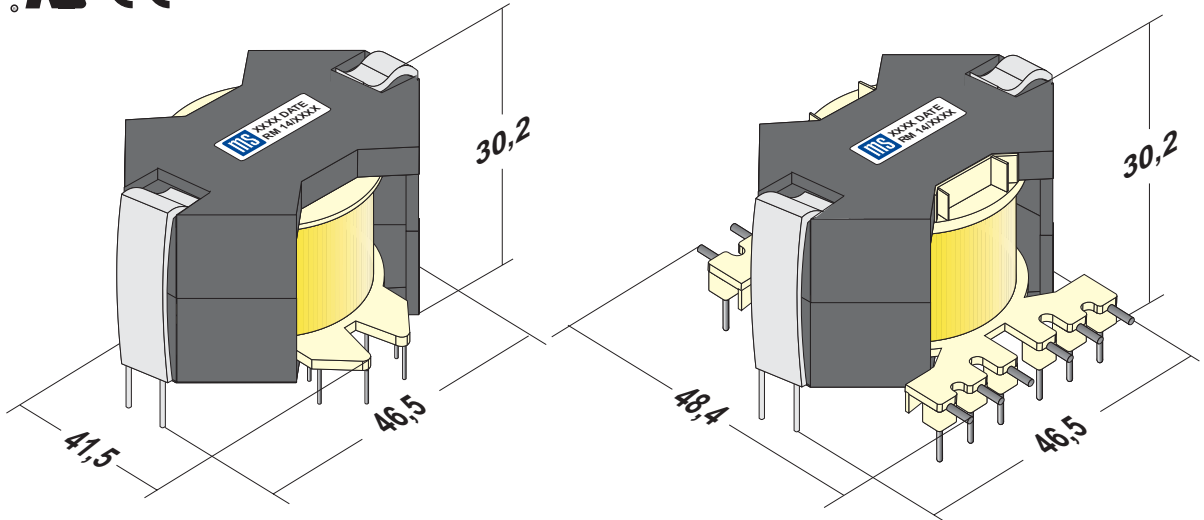
view on the top side in mounting direction  
pin grid= 2,54 mm

RM 12	<b>maximum power as flyback-, forward- or push-pull working type</b> <b>guide number on practical experience and computer based model calculations</b> <b>power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)</b>			
	frequency	flyback	forward	push-pull
	25 kHz	42 VA	55 VA	70 VA
	50 kHz	60 VA	70 VA	110 VA
	100 kHz	90 VA	105 VA	150 VA

- \* application as DC/DC-transducer, open or impregnated
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C) copper foil winding, polyimid insulated wires (3-times bandage)

# type RM 14

70 ... 250 VA

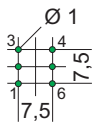
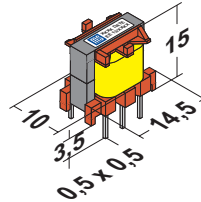


<b>RM 14</b>	<b>maximum power as flyback-, forward- or push-pull working type</b> <b>guide number on practical experience and computer based model calculations</b> <b>power table is for ta 40°C / B, impregnated with N 41 / N 67 (standard)</b>			
	<b>frequency</b>	<b>flyback</b>	<b>forward</b>	<b>push-pull</b>
	25 kHz	70 VA	90 VA	115 VA
	50 kHz	100 VA	115 VA	180 VA
	100 kHz	150 VA	175 VA	250 VA

- \* application as DC/DC-transducer, open or impregnated
- \* application also as storage choke
- \* custom-built development for switching frequencies from 20 kHz - 300 kHz (500 kHz) on your application, also for multiple output voltages
- \* construction for safety electrical disconnection satisfying EN 61558-2-17 (VDE 0570 part 2-17) respectively EN 60950 respectively EN 60065 or IEC 601
- \* optional: UL-insulating system class B for impregnated transformer
- \* ferrite components N 41, N 67 or N 87
- \* also until ta 105°C and class F (155°C) as special version possible
- \* possible winding technique: copper wire and/or HF stranded wire in class F (155°C) copper foil winding, polyimid insulated wires (3-times bandage)

# storage choke, vertical

# type EE 13



view on pin side  
pin grid = 3,75 mm



winding schematic

type	privileged series $1/2LI^2$ ca. 125 $\mu Ws$			
	rated current [ ADC ]	$L_o$ [ $\mu H$ ]	$L_n$ [ $\mu H$ ]	$R_{cu}$ [ mOhm ]
EE 13-0,12/ 8500	0,12	10500	8500	12000
EE 13-0,16/ 5200	0,16	6500	5200	7300
EE 13-0,20/ 3300	0,20	4000	3300	4500
EE 13-0,25/ 2500	0,25	3000	2500	3200
EE 13-0,32/ 1600	0,32	2000	1600	2100
EE 13-0,40/ 900	0,40	1100	900	1200
EE 13-0,50/ 700	0,50	850	700	860
EE 13-0,70/ 325	0,70	390	325	410
EE 13-1,00/ 125	1,00	150	125	180

**EE 13**

- \* storage-chokes for application in switch-control at frequency from 20 ... 100 kHz or 100 kHz ... 300 kHz
- \* rated inductance from 125  $\mu H$  until 8500  $\mu H$
- \* rated current from 0,12 ADC until 1,0 ADC
- \* standing type minimal surface area by 14,5 x 10 mm
- \* cost-optimized standing type-size, optionally in potted version possible
- \* small magnetic perturbation field with inside-lying gap
- \* compact and cost-optimized alternative to toroidal-type-sizes
- \* special version with 2 windings for series- and parallel-circuit on demand
- \* bobbin: PA6 gf, UL 94H HB, insulation class B, (UL 94V-1 on demand)
- \* order-tip: type, switch-frequency, UL 94V-1 if necessary