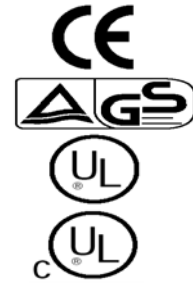
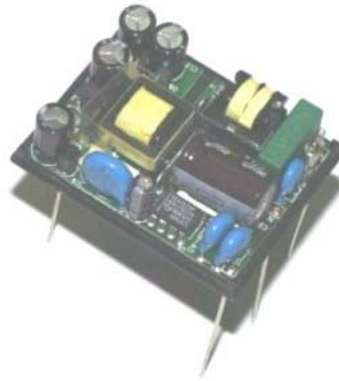


7 Watt
AC/DC
Power
Module

AC/DC Power Module

7 Watt KAM / KAD - Serie



POWER MODULE

Besondere Merkmale Features

Universaleingang	Universal input
Hoher Wirkungsgrad	High efficiency
Sehr kompakter Aufbau	Ultra compact design
Überlast- und kurzschlußfest	Overload short circuit protection
Interner Eingangsfilter	Internal input filter
Geschlossen(KAM) oder offen(KAD)	Available with(KAM) or without case(KAD)

Anwendung Application

Kompakte Baugruppen	Compact equipment
Netzwerktechnik	Networking
Peripheriegeräte und Terminals	Peripherals and terminals
MSR	Control equipments
Mikroprozessorsysteme	Microprocessor systems
Kleinrechner	Microcomputers

Technische Daten Specification

bei 25°C Umgebungstemperatur	at 25 °C ambient temperature
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Eingangsdaten Input Specifications

Eingangsspannung	Input voltage	90...264 V AC
Eingangsfrequenz	Input frequency	47...63 Hz
Doppelte Isolation	Double insulation	
Netzausfallüberbrückung	Hold-up time, nom.conditions	20 ms min.

Ausgangsdaten Output Specifications

Leistung	Power	7 Watt
Wirkungsgrad	Efficiency	typ. 79 %
Schaltfrequenz	Switching frequency	> 80 kHz
Überspannungsschutz	Overvoltage protection	>130 %
Überstrom/Kurzschlußschutz	Overcurrent/short-circuit protection	>130%, Auto Restart
Restwelligkeit	Ripple and noise	max +-1% p-p

Allgemeine Daten General Specifications

Betriebstemperatur	Operating temperature	-20°C...+71°C
Lagertemperatur	Storage temperature	-25°C...+85°C
Luftfeuchtigkeit	Humidity	20...95 %RH
Isolationswiderstand	Isolation resistance	100 MOhm min.
Isolation	Dielectric withstand (Hipot)	Input <-> Output 3 KVAC
MTBF	MTBF	MIL-HNBK: 265.000 h.
Funkentstörung	Emissions	EN 55022 B
Störfestigkeit	Immunity	EN50082-1, EN 61000-3-2

Zulassungsbestimmungen	Safety approvals	EN 61000-3-3 UL 1950, CSA 22.2 950 (cUL), TÜV EN 60950, CB-Test-Report
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AC/DC Power Module

7 Watt KAM / KAD - Serie

7 Watt AC/DC Power Module

Bestell-Information / Order Information

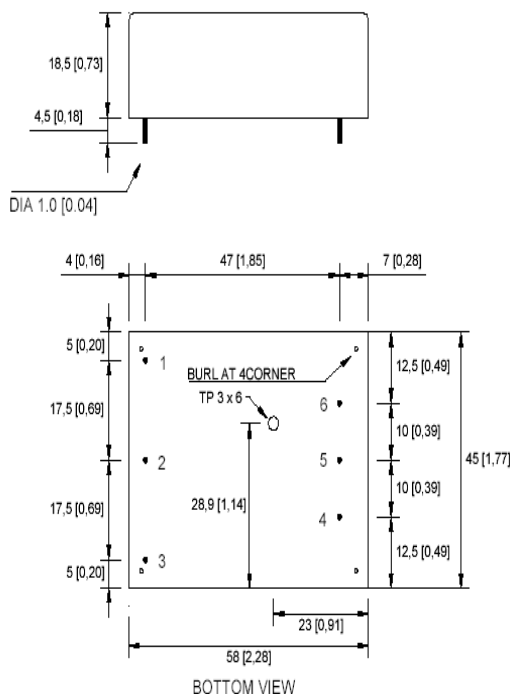
Modell	Ausgang 1 Output 1	Last/Load		Ausgang 2 Output 2	Last/Load	
		Min.	Max.		Min.	Max.
KAM0703	3,3 V	0.0 A	2,0 A			
KAM0705	5 V	0.0 A	1,5 A			
KAM0712	12 V	0.0 A	0,63 A			
KAM0715	15 V	0.0 A	0,5 A			
KAM0724	24 V	0.0 A	0,32 A			
KAM0712D	+12 V	0,065 A	0,32 A	- 12V	0,065 A	0,32 A
KAM0715D	+15 V	0,05 A	0,25 A	- 15V	0,05 A	0,25 A
KAM07503D	+3,3V	0,2 A	1,0 A	+12V	0,06 A	0,30 A
KAM07512D	+5 V	0,12 A	0,6 A	+12V	0,06 A	0,30 A
KAD07033,3 V	0.0 A	2,0 A				
KAD0705	5 V	0.0 A	1,5 A			
KAD0712	12 V	0.0 A	0,63 A			
KAD0715	15 V	0.0 A	0,5 A			
KAD0724	24 V	0.0 A	0,32 A			
KAD0712D	+12 V	0,065 A	0,32 A	- 12V	0,065 A	0,32 A
KAD0715D	+15 V	0,05 A	0,25 A	- 15V	0,05 A	0,25 A
KAD07503D	+3,3V	0,2 A	1,0 A	+12V	0,06 A	0,30 A
KAD07512D	+5 V	0,12 A	0,6 A	+12V	0,06 A	0,30 A

MEMO:

Andere Typen und Spannungen auf Anfrage • Other models and configurations on request

MECHANISM & PIN CONFIGURATION

mm [inch]



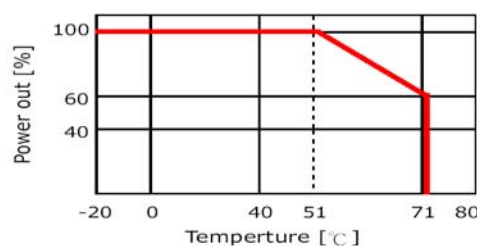
PHYSICAL CHARACTERISTICS

CASE SIZE	58 x 45 x 18,5mm 2,28 x 1,77 x 0,73inch
CASE MATERIAL	Plastic
WEIGHT	85 g

PIN ASSIGNMENT

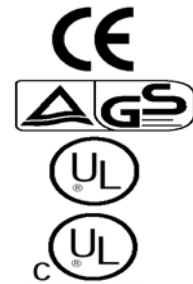
PIN NO.	1	2	3	4	5	6
SINGLE	AC IN	AC IN	F.G.	Vo-	NO PIN	Vo+
DUAL	AC IN	AC IN	F.G.	Vo2	com	Vo1

Derating:



AC/DC Power Module

15 Watt KAM / KAD - Serie



POWER MODULE

Besondere Merkmale Features

Universaleingang	Universal input
Hoher Wirkungsgrad	High efficiency
Sehr kompakter Aufbau	Ultra compact design
Überlast- und kurzschlußfest	Overload short circuit protection
Interner Eingangsfiler	Internal input filter
Geschlossen(KAM) oder offen(KAD)	Available with(KAM) or without case(KAD)
Extern trimmbar (single output)	External trimming (single output)

Anwendung Application

Kompakte Baugruppen	Compact equipment
Netzwerktechnik	Networking
Peripheriegeräte und Terminals	Peripherals and terminals
MSR	Control equipments
Mikroprozessorsysteme	Microprocessor systems
Kleinrechner	Microcomputers

Technische Daten Specification

bei 25°C Umgebungstemperatur	at 25 °C ambient temperature
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Eingangsdaten Input Specifications

Eingangsspannung	Input voltage	90...264 V AC
Eingangsfrequenz	Input frequency	47...63 Hz
Doppelte Isolation	Double insulation	
Netzausfallüberbrückung	Hold-up time, nom.conditions	20 ms min.

Ausgangsdaten Output Specifications

Leistung	Power	15 Watt
Wirkungsgrad	Efficiency	typ. 82 %
Schaltfrequenz	Switching frequency	> 80 kHz
Überspannungsschutz	Overvoltage protection	>130 %
Überstrom/Kurzschlußschutz	Overcurrent/short-circuit protection	>130%, Auto Restart
Restwelligkeit	Ripple and noise	max +-1% p-p

Allgemeine Daten General Specifications

Betriebstemperatur	Operating temperature	-20°C...+71°C
Lagertemperatur	Storage temperature	-40°C...+100°C
Luftfeuchtigkeit	Humidity	20...95 %RH
Isolationswiderstand	Isolation resistance	100 MOhm min.
Isolation	Dielectric withstand (Hipot)	Input <-> Output 3 KVAC
MTBF	MTBF	MIL-HNBK: 245.000 h.
Funkentstörung	Emissions	EN 55022 B
Störfestigkeit	Immunity	EN50082-1, EN 61000-3-2
		EN 61000-3-3
Zulassungsbestimmungen	Safety approvals	UL 1950, CSA 22.2 950 (cUL), TÜV EN 60950, CB-Test-Report

AC/DC Power Module

15 Watt KAM / KAD - Serie

15 Watt AC/DC Power Module

Bestell-Information / Order Information

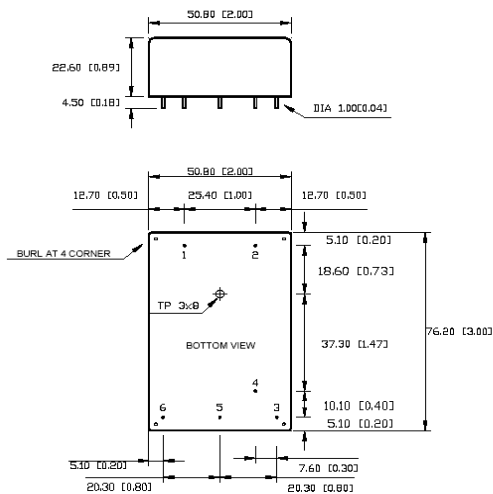
Modell	Ausgang 1 Output 1	Last/Load		Ausgang 2 Output 2	Last/Load	
		Min.	Max.		Min.	Max.
KAM1503	3,3 V	0.0 A	4,0 A			
KAM1505	5 V	0.0 A	3,0 A			
KAM1512	12 V	0.0 A	1,25 A			
KAM1515	15 V	0.0 A	1,0 A			
KAM1524	24 V	0.0 A	0,625 A			
KAM1512D	+12 V	0.125 A	0,625 A	- 12V	0,125 A	0,625 A
KAM1515D	+15 V	0.1 A	0,5 A	- 15V	0,1 A	0,5 A
KAM15503D	+3,3V	0,6 A	3,0 A	+ 5V	0,2 A	1,0 A
KAD1503	3,3 V	0.0 A	4,0 A			
KAD1505	5 V	0.0 A	3,0 A			
KAD1512	12 V	0.0 A	1,25 A			
KAD1515	15 V	0.0 A	1,0 A			
KAD1524	24 V	0.0 A	0,625 A			
KAD1512D	+12 V	0.125 A	0,625 A	- 12V	0,125 A	0,625 A
KAD1515D	+15 V	0.1 A	0,5 A	- 15V	0,1 A	0,5 A
KAD15503D	+3,3V	0,6 A	3,0 A	+ 5V	0,2 A	1,0 A

MEMO:

Andere Typen und Spannungen auf Anfrage • Other models and configurations on request

MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

CASE SIZE	76.2 x 50.8 x 22.6mm 3 x 2 x 0.89inch
CASE MATERIAL	Plastic
WEIGHT	160 g

PIN ASSIGNMENT

PIN NO.	1	2	3	4	5	6
SINGLE	AC IN	AC IN	Vo-	Trim	NO PIN	Vo+
DUAL	AC IN	AC IN	Vo-	NO PIN	com	Vo+

Fig. 1 Trim connection (For single output only)

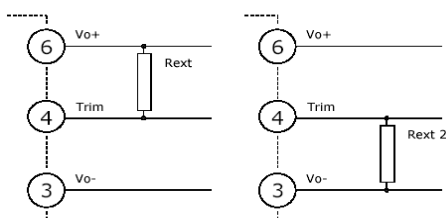
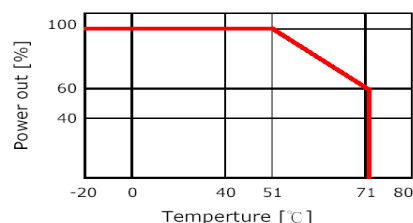


Table 1 Typical resistor values for various output voltage adjustment settings

Type	Rext 1		Rext 2	
	Uo nom -5%	Uo nom -10%	Uo nom +5%	Uo nom +10%
KAM1503	180K Ω	56K Ω	100K Ω	20K Ω
KAM1505	39K Ω	15K Ω	9.1K Ω	2.2K Ω
KAM1512	51K Ω	20K Ω	10K Ω	2K Ω
KAM1515	150K Ω	68K Ω	20K Ω	4.7K Ω
KAM1524	130K Ω	56K Ω	12K Ω	2K Ω

Derating:



30 Watt
AC/DC
Power
Module

AC/DC Power Module

30 Watt KAMN / KADN - Serie



POWER MODULE

Besondere Merkmale Features

Universaleingang	Universal input
Hoher Wirkungsgrad	High efficiency
Sehr kompakter Aufbau	Ultra compact design
Überlast- und kurzschlußfest	Overload short circuit protection
Interner EingangsfILTER	Internal input filter
Geschlossen(KAMN) oder offen(KADN)	Available with(KAMN) or without case(KADN)
Extern trimmbar (single output)	External trimming (single output)

Anwendung Application

Kompakte Baugruppen	Compact equipment
Netzwerktechnik	Networking
Peripheriegeräte und Terminals	Peripherals and terminals
MSR	Control equipments
Mikroprozessorsysteme	Microprocessor systems
Kleinrechner	Microcomputers

Technische Daten Specification

bei 25°C Umgebungstemperatur	at 25 °C ambient temperature
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Eingangsdaten Input Specifications

Eingangsspannung	Input voltage	85...265 V AC 120...370 V DC
Eingangsfrequenz	Input frequency	47...63 Hz
Doppelte Isolation	Double insulation	
Netzausfallüberbrückung	Hold-up time, nom.conditions	15 ms min.

Ausgangsdaten Output Specifications

Leistung	Power	typ. 30 Watt
Wirkungsgrad	Efficiency	typ. 86 %
Schaltfrequenz	Switching frequency	typ. 65 kHz
Überstromschutz	Overload protection	>120 %
Überstrom/Kurzschlußschutz	Overcurrent/short-circuit protection	Hiccup mode, Auto Restart
Restwelligkeit	Ripple and noise	max +-1% p-p

Allgemeine Daten General Specifications

Betriebstemperatur	Operating temperature	-40°C...+71°C
Lagertemperatur	Storage temperature	-40°C...+100°C
Luftfeuchtigkeit	Humidity	20...95 %RH
Isolationswiderstand	Isolation resistance	100 MOhm min.
Isolation	Dielectric withstand (Hipot)	Input <-> Output 3 KVAC
Eingangssicherung (intern)	Input fuse (internal)	T2A / 250 VAC
TÜV	TÜV	EN 60950-1
UL / cUL	UL / cUL	UL 60950-1 recognized
CE	CE	EN61000-6-3, EN55022 class B
		EN61000-6-2, EN55024
		EN61000-3-2, EN61000-3-3
		EN61204-3

AC/DC Power Module

30 Watt KAMN / KADN - Serie

30 Watt AC/DC Power Module

Bestell-Information / Order Information

Modell	Ausgang 1 Output 1	Last/Load		Ausgang 2 Output 2	Last/Load	
		Min.	Max.		Min.	Max.
KAMN3003	3,3 V	0.0 A	7,5 A			
KAMN3005	5 V	0.0 A	6,0 A			
KAMN3012	12 V	0.0 A	2,5 A			
KAMN3015	15 V	0.0 A	2,0 A			
KAMN3024	24 V	0.0 A	1,25 A			
KAMN3012D	+12 V	0.25 A	1,25 A	- 12V	0,25 A	1,25 A
KAMN3015D	+15 V	0.2 A	1,0 A	- 15V	0,2 A	1,0 A
KAMN30503D	+3,3V	0,3 A	1,5 A	+ 5V	0,6 A	3,0 A
KAMN30512D	+5 V	0,6 A	3,0 A	+ 12V	0,25 A	1,25 A
KADN3003	3,3 V	0.0 A	7,5 A			
KADN3005	5 V	0.0 A	6,0 A			
KADN3012	12 V	0.0 A	2,5 A			
KADN3015	15 V	0.0 A	2,0 A			
KADN3024	24 V	0.0 A	1,25 A			
KADN3012D	+12 V	0.25 A	1,25 A	- 12V	0,25 A	1,25 A
KADN3015D	+15 V	0.2 A	1,0 A	- 15V	0,2 A	1,0 A
KADN30503D	+3,3V	0,3 A	1,5 A	+ 5V	0,6 A	3,0 A
KADN30512D	+5 V	0,6 A	3,0 A	+ 12V	0,25 A	1,25 A

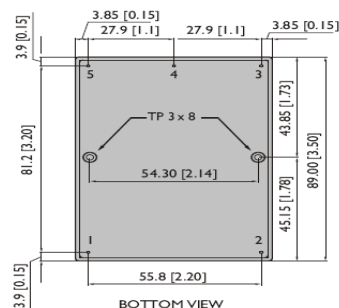
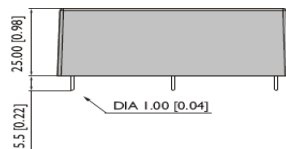
MEMO:

Andere Typen und Spannungen auf Anfrage • Other models and configurations on request

MECHANISM & PIN CONFIGURATION

mm [inch]

KAMN30 series



PHYSICAL CHARACTERISTICS

CASE SIZE	L 89 x W 63.5 x H25mm (L 3.5 x W 2.5 x H 0.98 inches)
CASE MATERIAL	Plastic
WEIGHT	250g

PIN ASSIGNMENT

GENERAL						
PIN NO.	1	2	3	4	5	
SINGLE	N	L	Vo +	Vo -	Trim	
DUAL	N	L	Vo + or +5V	com	Vo- or +3.3V or +12V	

DERATING

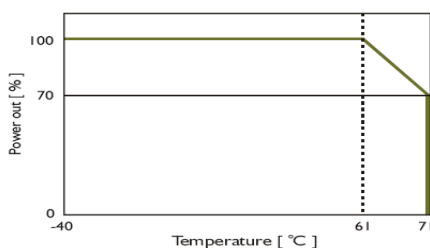


Fig. 1 Trim connection

(For single output only)

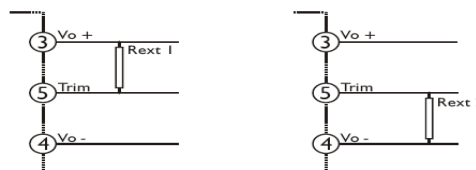


Table 1 Typical resistor values for various output voltage adjustment settings

Type	Rext 1		Rext 2	
	Uo nom -5%	Uo nom -10%	Uo nom +5%	Uo nom +10%
KAMN3003	100K Ω	N / A	12K Ω	N / A
KAMN3005	4.7K Ω	0K Ω	5.6K Ω	820 Ω
KAMN3012	39K Ω	15K Ω	15K Ω	2.7K Ω
KAMN3015	120K Ω	51K Ω	22K Ω	2.7K Ω
KAMN3024	130K Ω	56K Ω	8.66K Ω	510 Ω

40 Watt
AC/DC
Power
Module

AC/DC Power Module

40 Watt KAMN / KADN - Serie



POWER MODULE

Besondere Merkmale

Universaleingang
Hoher Wirkungsgrad
Sehr kompakter Aufbau
Überlast- und kurzschlußfest
Interner Eingangsfiler
Geschlossen(KAMN) oder offen(KADN)
Extern trimmbar (single output)

Features

Universal input
High efficiency
Ultra compact design
Overload short circuit protection
Internal input filter
Available with(KAMN) or without case(KADN)
External trimming (single output)

Anwendung

Kompakte Baugruppen
Netzwerktechnik
Peripheriegeräte und Terminals
MSR
Mikroprozessorsysteme
Kleinrechner

Application

Compact equipment
Networking
Peripherals and terminals
Control equipments
Microprocessor systems
Microcomputers

Technische Daten

bei 25°C Umgebungstemperatur

Specification

at 25 °C ambient temperature

Eingangsdaten

Eingangsspannung
Eingangsfrequenz
Doppelte Isolation
Netzausfallüberbrückung

Input Specifications

Input voltage 85...265 V AC
120...370 V DC
Input frequency 47...63 Hz
Double insulation
Hold-up time, nom.conditions 10 ms min.

Ausgangsdaten

Leistung
Wirkungsgrad
Schaltfrequenz
Überstromschutz
Überstrom/Kurzschlußschutz
Restwelligkeit

Output Specifications

Power typ. 40 Watt
Efficiency typ. 87 %
Switching frequency typ. 65 kHz
Overload protection >120 %
Overcurrent/short-circuit protection Hiccup mode, Auto Restart
Ripple and noise max +-1% p-p

Allgemeine Daten

Betriebstemperatur
Lagertemperatur
Luftfeuchtigkeit
Isolationswiderstand
Isolation
Eingangssicherung (intern)
TÜV
UL / cUL
CE

General Specifications

Operating temperature -40°C...+71°C
Storage temperature -40°C...+100°C
Humidity 20...95 %RH
Isolation resistance 100 MOhm min.
Dielectric withstand (Hipot) Input <-> Output 3 KVAC
Input fuse (internal) T2A / 250 VAC
TÜV EN 60950-1
UL / cUL UL 60950-1 recognized
CE EN61000-6-3, EN55022 class B
EN61000-6-2, EN55024
EN61000-3-2, EN61000-3-3
EN61204-3

AC/DC Power Module

40 Watt KAMN / KADN - Serie

40 Watt AC/DC Power Module

Bestell-Information / Order Information

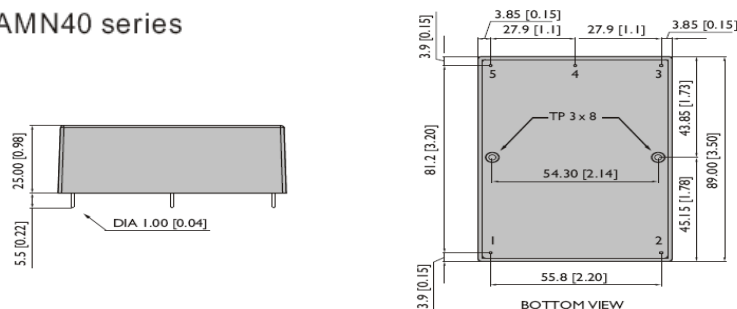
Modell	Ausgang 1	Last/Load		Ausgang 2	Last/Load	
	Output 1	Min.	Max.		Output 2	Min.
KAMN4003	3,3 V	0.0 A	8,5 A			
KAMN4005	5 V	0.0 A	8,0 A			
KAMN4012	12 V	0.0 A	3,4 A			
KAMN4015	15 V	0.0 A	2,7 A			
KAMN4024	24 V	0.0 A	1,7 A			
KAMN4012D	+12 V	0.25 A	1,7 A	- 12V	0,25 A	1,7 A
KAMN4015D	+15 V	0.2 A	1,35 A	- 15V	0,2 A	1,35 A
KAMN40503D	+3,3V	0,3 A	2,0 A	+ 5V	0,6 A	5,0 A
KAMN40512D	+5 V	0,6 A	5,0 A	+ 12V	0,25 A	1,25 A
KADN4003	3,3 V	0.0 A	8,5 A			
KADN4005	5 V	0.0 A	8,0 A			
KADN4012	12 V	0.0 A	3,4 A			
KADN4015	15 V	0.0 A	2,7 A			
KADN4024	24 V	0.0 A	1,7 A			
KADN4012D	+12 V	0.25 A	1,7 A	- 12V	0,25 A	1,7 A
KADN4015D	+15 V	0.2 A	1,35 A	- 15V	0,2 A	1,35 A
KADN40503D	+3,3V	0,3 A	2,0 A	+ 5V	0,6 A	5,0 A
KADN40512D	+5 V	0,6 A	5,0 A	+ 12V	0,25 A	1,25 A

MEMO:

Andere Typen und Spannungen auf Anfrage • Other models and configurations on request

MECHANISM & PIN CONFIGURATION

mm [inch] KAMN40 series



PHYSICAL CHARACTERISTICS

CASE SIZE	L 89 x W 63.5 x H25mm (L 3.5 x W 2.5 x H 0.98 inches)
CASE MATERIAL	Plastic
WEIGHT	250g

PIN ASSIGNMENT

GENERAL						
PIN NO.	1	2	3	4	5	
SINGLE	N	L	Vo +	Vo -	Trim	
DUAL	N	L	Vo + or +5V	com	Vo- or +3.3V or +12V	

DERATING

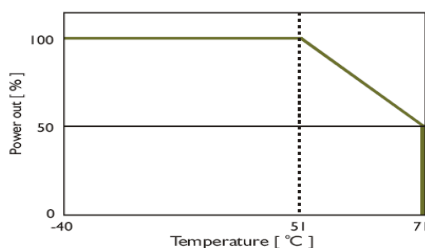


Fig. 1 Trim connection

(For single output only)

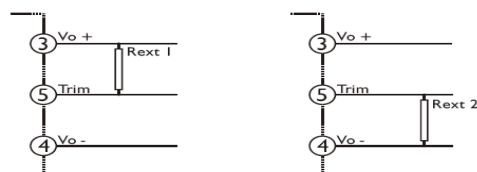


Table 1 Typical resistor values for various output voltage adjustment settings

Type	Rext 1		Rext 2	
	Uo nom -5%	Uo nom -10%	Uo nom +5%	Uo nom +10%
KAMN4003	100K Ω	N / A	12K Ω	N / A
KAMN4005	4.7K Ω	0K Ω	5.6K Ω	820 Ω
KAMN4012	39K Ω	15K Ω	15K Ω	2.7K Ω
KAMN4015	120K Ω	51K Ω	22K Ω	2.7K Ω
KAMN4024	130K Ω	56K Ω	8.66K Ω	510 Ω