EFLA
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PRODUCT DATASHEET

Low Leakage Transformer for Addressable Systems

KR600

FAA AC 150 5345-47, L-830 / L-831, 60 Hz / 50 Hz
EN 61823



KR600 is used to supply the current in the AGL series circuit and to provide a separation point between the primary and secondary circuits. Thermoplastic elastomer (TPE) encapsulated KR600 series transformers are designed in toroidal shape, which provides superior electrical performance. Toroidal is a symmetric “donut” shape which ensures the lowest leakage inductance. It also supports single lamp control and more advanced control and monitoring requirements. KR600 is the most energy efficient transformer on the market. Transformers are Intertek certified to FAA AC and approved by IEC. They also comply with ICAO Annex 14 and several other national standards (CAAC, MAK).

- Superior isolation resistance by thermoplastic elastomer (TPE)
- Optimal physical size and electrical performance of toroidal structure
  - Rated power 10–500 W
  - Rated current 6.6 A/6.6 A , other currents upon request.
  - Power factor > 0.97
  - L (leak) 20 µH–130 µH
  - L (magn) 13.0 mH–64 mH



Materials

- Thermoplastic elastomer (TPE) is a modern material with excellent electrical and mechanical properties, which has great resistance against typical chemicals used in airfields, weathering, UV-radiation and ozone exposure, as well as temperature effects up to 135 °C (275 °F).
- Tin-plated copper or brass for the contact parts, while the socket is supplied with a copper beryllium sleeve-type spring, ensuring adequate contact pressure.

Sustainability

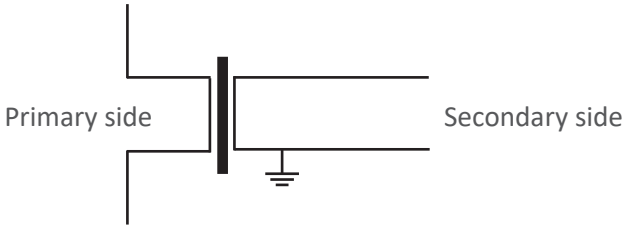
- Lighter weight and reduced material usage thanks to sustainable and compact design, resulting in optimal perfomance with lower enviromental impact.
- High energy-efficient 360-degree toroidal transformers minimize power losses and contribute to overall system efficiency and energy-savings.
- Flexible power range supports optimized power usage in the AGL circuits.

Connections

	Standard KR600 series
Primary leads	2 x 60 cm/1.969 ft, 1 x 6 mm^2
Primary connector type	FAA L-823 Style 2 Plug & Style 9 Receptacle
Secondary lead	1 x 1.2 m/3.937 ft, 2 x 2.5 mm^2
Secondary connector type	FAA-L-823 Style 8

KR600 with or without earthing (grounding)

EFLA supplies transformers with or without earthing. The earthing is connected to the end of the secondary winding on the side of the larger socket. This means that the bigger socket of the secondary side is grounded.



Customized transformers

In addition to our standard 6.6 A/6.6 A series isolation transformers, EFLA can develop and supply customized transformers according to various technical requests and global specifications. Please contact us to discuss further about your needs.



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Electrical information

EFLA Type with Earthing	EFLA Type without Earthing	FAA Type	Rated Power [W]	Rated Current [A]	Power Range [W]	Load [Ω]	Efficiency [%]	Power Factor
KR621	KR621.1	L-830-16 L-831-16	10/15	6.6/6.6	10–15	0.34*	> 70	> 0.97
KR625	KR625.1	L-830-17 L-831-17	20/25	6.6/6.6	20–25	0.57*	> 70	> 0.97
KR631	KR631.1	L-830-1 L-831-1	30/45	6.6/6.6	25–60	0.57–1.38	> 85	> 0.97
KR636	KR636.1	L-830-3 L-831-3	65	6.6/6.6	50–85	1.15–1.95	> 85	> 0.97
KR641	KR641.1	L-830-4 L-831-4	100	6.6/6.6	80–125	1.84–2.87	> 85	> 0.97
KR646	KR646.1	L-830-18 L-831-18	150	6.6/6.6	120–178	2.75–4.08	> 90	> 0.97
KR651	KR651.1	L-830-6 L-831-6	200	6.6/6.6	160–230	3.67–5.28	> 90	> 0.97
KR661	KR661.1	L-830-10 L-831-10	300	6.6/6.6	220–338	5.05–7.75	> 90	> 0.97
KR681	KR681.1	L-830-14 L-831-14	500	6.6/6.6	400–523	12.00*	> 90	> 0.97

* According to FAA AC 150/5345-47

Leakage inductances

EFLA Type with Earthing	EFLA Type without Earthing	Power [W]	Short Circuited current [A]	Open Circuited voltage [V]	L (magn) [mH]	L (leak) [µH]
KR621	KR621.1	10/15	< 6.7	< 8	13.0	< 20
KR625	KR625.1	20/25	< 6.7	< 8	13.0	< 20
KR631	KR631.1	30/45	< 6.7	< 13	16.0	< 30
KR636	KR636.1	65	< 6.7	< 16	19.0	< 40
KR641	KR641.1	100	< 6.7	< 23	23.0	< 40
KR646	KR646.1	150	< 6.7	< 25	24.0	< 60
KR651	KR651.1	200	< 6.7	< 41	25.0	< 60
KR661	KR661.1	300	< 6.7	< 70	35.0	< 100
KR681	KR681.1	500	< 6.7	< 100	64.0	< 130



Dimensions

EFLA Type with Earthing	EFLA type without Earthing	D [mm]	L [mm]	H [mm]	Weight [kg]
KR621	KR621.1	89	115	45	1.03
KR625	KR625.1	89	115	45	1.03
KR631	KR631.1	105	128	57	1.6
KR636	KR636.1	120	145	54	1.9
KR641	KR641.1	130	155	59	2.4
KR646	KR646.1	146	192	60	3.1
KR651	KR651.1	146	192	65	3.3
KR661	KR661.1	146	192	77	4.0
KR681	KR681.1	146	192	96	5.33

Temperature rise values

Type	Pri. temp rise [C°]	Sec. temp rise [C°]
KR621	8	13
KR625	29	25
KR631	22	14
KR636	35	26
KR641	27	19
KR646	29	21
KR651	36	26
KR661	48	38

Accessories

Transformer hanger - TS1

STAINLESS STEEL AISI316 hanger to place transformers in good order and away from water and dirt in underground pit holes. There are two ways to install hanger; either by screwing it on the wall or hanging it on rail.





Note:
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