



# THAI LIN RADIO

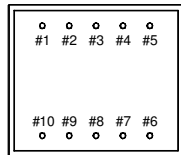
since 1975

Трансформаторы  
герметизированные EI30x23  
2.7-3.2VA STANDARD  
ENCAPSULATED  
TRANSFORMER TYPE EI30 / 23.0

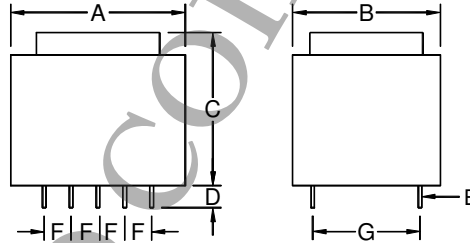


### Type EI30 / 23.0

- Power – 2.7/2.8/2.9/3.0/3.2VA
- Frequency – 50/60 Hz
- Temperature class – Class B (130°C)
- Ambient temperature (ta) – 40°C or 70°C
- Dielectric strength – 4000Vrms
- Potted under vacuum
- Inherently short-circuit-proof
- Agency approvals
  - TUV / CE: EN61558 / EN60950
  - UL: UL5085-1 / -2;
  - C-UL: CSA C22.2 #66.1 / #66.2
  - CQC: GB19212.1 / GB19212.7



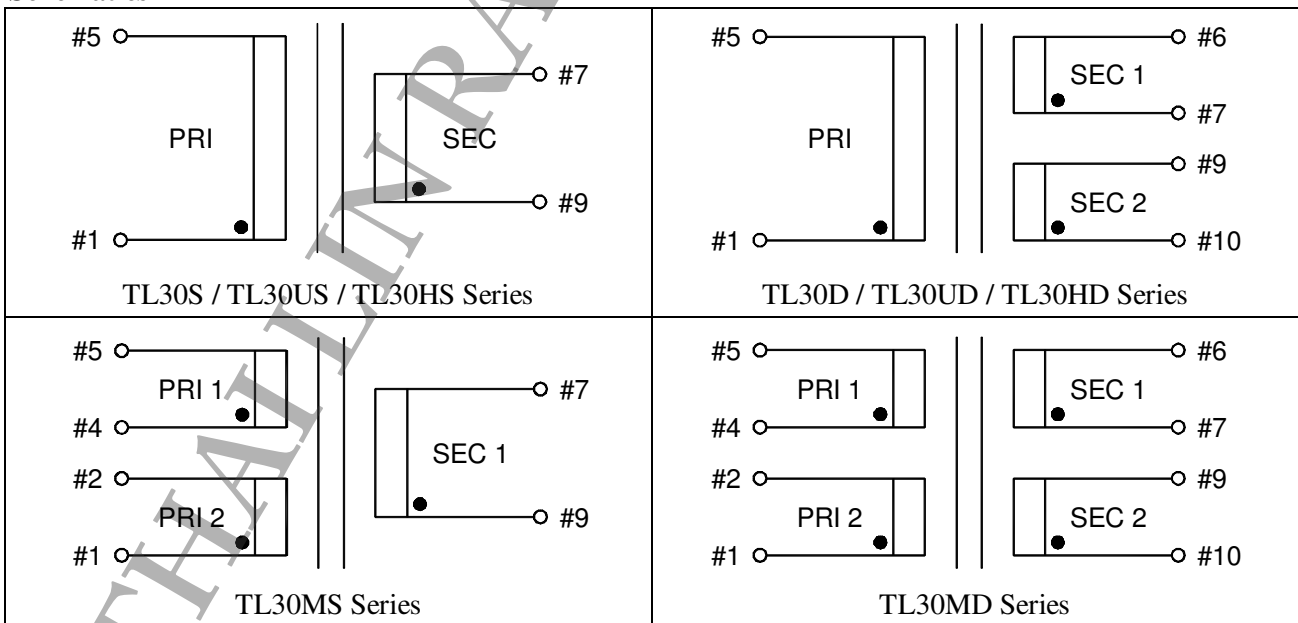
Bottom View



	A	B	C	D	E	F	G	Weight (g)
<b>Dimension (mm)</b>	32.6	27.6	34.3	4.0	SQ0.64	5.0	20.0	130
<b>Tolerance (mm)</b>	±0.5	±0.5	±0.5	±1.0	±0.1	±0.2	±0.5	approx.

Note: Unused pins are omitted for standard parts. Unused pins can be provided upon request.

### Schematics







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Dual input:

Type of Designation		Suffix
1)	TL30Mx-yyy-zzz (note 1)	w/o suffix = Product with TUV & UL (EN61558 + EN60950 + CE + UL5085-1/-2 + CSA C22.2 #66.1 66.2)
		CN = Product with CQC (GB19212.1 + GB19212.7)
2)	TL30MD-yyy-zzz (note 1)	(Z) = Product with providing unused Pin #8

- Note: (1) x = S: one secondary winding  
 = D: two secondary windings  
 yyy = 3 digit numbers indicate 10 times the rated output voltage (V)  
 zzz = 3 digit numbers indicate the rated output current (mA)  
 (2) In case of need, please add the appropriate suffixes in the part number when ordering.

Product Series	Primary	Single Secondary			Dual Secondary			ta (°C)	Agency Approval
		Part Number	Secondary Rating		Part Number	Secondary Rating			
			(V)	(mA)		(V)	(mA)		
2.7VA	230	TL30S-060-450T	6	450	TL30D-060-225T	2 x 6	225	70	TUV CE CQC
		TL30S-072-375T	7.2	375	TL30D-072-187T	2 x 7.2	187		
		TL30S-090-300T	9	300	TL30D-090-150T	2 x 9	150		
		TL30S-100-270T	10	270	TL30D-100-135T	2 x 10	135		
		TL30S-120-225T	12	225	TL30D-120-112T	2 x 12	112		
		TL30S-150-180T	15	180	TL30D-150-090T	2 x 15	90		
		TL30S-180-150T	18	150	TL30D-180-075T	2 x 18	75		
		TL30S-240-112T	24	112	TL30D-240-056T	2 x 24	56		
	115	TL30US-060-450T	6	450	TL30UD-060-225T	2 x 6	225	70	UL5085-1/-2 C-UL
		TL30US-072-375T	7.2	375	TL30UD-072-187T	2 x 7.2	187		
		TL30US-090-300T	9	300	TL30UD-090-150T	2 x 9	150		
		TL30US-100-270T	10	270	TL30UD-100-135T	2 x 10	135		
		TL30US-120-225T	12	225	TL30UD-120-112T	2 x 12	112		
		TL30US-150-180T	15	180	TL30UD-150-090T	2 x 15	90		
		TL30US-180-150T	18	150	TL30UD-180-075T	2 x 18	75		
		TL30US-240-112T	24	112	TL30UD-240-056T	2 x 24	56		
	115 (Parallel) or 230 (Series)	TL30MS-060-450T	6	450	TL30MD-060-225T	2 x 6	225	70	UL5085-1/-2 C-UL TUV CE CQC
		TL30MS-072-375T	7.2	375	TL30MD-072-187T	2 x 7.2	187		
		TL30MS-090-300T	9	300	TL30MD-090-150T	2 x 9	150		
		TL30MS-100-270T	10	270	TL30MD-100-135T	2 x 10	135		
TL30MS-120-225T		12	225	TL30MD-120-112T	2 x 12	112			
TL30MS-150-180T		15	180	TL30MD-150-090T	2 x 15	90			
TL30MS-180-150T		18	150	TL30MD-180-075T	2 x 18	75			
TL30MS-240-112T		24	112	TL30MD-240-056T	2 x 24	56			
400	TL30HS-060-450T	6	450	TL30HD-060-225T	2 x 6	225	70	--	
	TL30HS-072-375T	7.2	375	TL30HD-072-187T	2 x 7.2	187			
	TL30HS-090-300T	9	300	TL30HD-090-150T	2 x 9	150			
	TL30HS-100-270T	10	270	TL30HD-100-135T	2 x 10	135			
	TL30HS-120-225T	12	225	TL30HD-120-112T	2 x 12	112			
	TL30HS-150-180T	15	180	TL30HD-150-090T	2 x 15	90			
	TL30HS-180-150T	18	150	TL30HD-180-075T	2 x 18	75			
	TL30HS-240-112T	24	112	TL30HD-240-056T	2 x 24	56			



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Product Series	Primary	Single Secondary			Dual Secondary			ta (°C)	Agency Approval
		Part Number	Secondary Rating		Part Number	Secondary Rating			
			(V)	(mA)		(V)	(mA)		
2.8VA	230	TL30S-060-466T	6	466	TL30D-060-233T	2 x 6	233	70	TUV CE CQC
		TL30S-072-388T	7.2	388	TL30D-072-194T	2 x 7.2	194		
		TL30S-090-311T	9	311	TL30D-090-155T	2 x 9	155		
		TL30S-100-280T	10	280	TL30D-100-140T	2 x 10	140		
		TL30S-120-233T	12	233	TL30D-120-116T	2 x 12	116		
		TL30S-150-186T	15	186	TL30D-150-093T	2 x 15	93		
	115	TL30S-180-155T	18	155	TL30D-180-077T	2 x 18	77	70	UL5085-1/-2 C-UL
		TL30S-240-116T	24	116	TL30D-240-058T	2 x 24	58		
		TL30US-060-466T	6	466	TL30UD-060-233T	2 x 6	233		
		TL30US-072-388T	7.2	388	TL30UD-072-194T	2 x 7.2	194		
		TL30US-090-311T	9	311	TL30UD-090-155T	2 x 9	155		
		TL30US-100-280T	10	280	TL30UD-100-140T	2 x 10	140		
115 (Parallel) or 230 (Series)	TL30US-120-233T	12	233	TL30UD-120-116T	2 x 12	116	70	UL5085-1/-2 C-UL TUV CE CQC	
	TL30US-150-186T	15	186	TL30UD-150-093T	2 x 15	93			
	TL30US-180-155T	18	155	TL30UD-180-077T	2 x 18	77			
	TL30US-240-116T	24	116	TL30UD-240-058T	2 x 24	58			
	TL30MS-060-466T	6	466	TL30MD-060-233T	2 x 6	233			
	TL30MS-072-388T	7.2	388	TL30MD-072-194T	2 x 7.2	194			
400	TL30MS-090-311T	9	311	TL30MD-090-155T	2 x 9	155	70	--	
	TL30MS-100-280T	10	280	TL30MD-100-140T	2 x 10	140			
	TL30MS-120-233T	12	233	TL30MD-120-116T	2 x 12	116			
	TL30MS-150-186T	15	186	TL30MD-150-093T	2 x 15	93			
	TL30MS-180-155T	18	155	TL30MD-180-077T	2 x 18	77			
	TL30MS-240-116T	24	116	TL30MD-240-058T	2 x 24	58			
2.9VA	230	TL30S-060-483T	6	483	TL30D-060-241T	2 x 6	241	70	TUV CE CQC
		TL30S-072-402T	7.2	402	TL30D-072-201T	2 x 7.2	201		
		TL30S-090-322T	9	322	TL30D-090-161T	2 x 9	161		
		TL30S-100-290T	10	290	TL30D-100-145T	2 x 10	145		
		TL30S-120-241T	12	241	TL30D-120-120T	2 x 12	120		
		TL30S-150-193T	15	193	TL30D-150-096T	2 x 15	96		
	115	TL30S-180-161T	18	161	TL30D-180-080T	2 x 18	80	70	UL5085-1/-2 C-UL
		TL30S-240-120T	24	120	TL30D-240-060T	2 x 24	60		
		TL30US-060-483T	6	483	TL30UD-060-241T	2 x 6	241		
		TL30US-072-402T	7.2	402	TL30UD-072-201T	2 x 7.2	201		
		TL30US-090-322T	9	322	TL30UD-090-161T	2 x 9	161		
		TL30US-100-290T	10	290	TL30UD-100-145T	2 x 10	145		
115 (Parallel) or 230 (Series)	TL30US-120-241T	12	241	TL30UD-120-120T	2 x 12	120	70	UL5085-1/-2 C-UL TUV CE CQC	
	TL30US-150-193T	15	193	TL30UD-150-096T	2 x 15	96			
	TL30US-180-161T	18	161	TL30UD-180-080T	2 x 18	80			
	TL30US-240-120T	24	120	TL30UD-240-060T	2 x 24	60			
	TL30MS-060-483T	6	483	TL30MD-060-241T	2 x 6	241			
	TL30MS-072-402T	7.2	402	TL30MD-072-201T	2 x 7.2	201			
TL30MS-090-322T	9	322	TL30MD-090-161T	2 x 9	161				
TL30MS-100-290T	10	290	TL30MD-100-145T	2 x 10	145				
TL30MS-120-241T	12	241	TL30MD-120-120T	2 x 12	120				
TL30MS-150-193T	15	193	TL30MD-150-096T	2 x 15	96				
TL30MS-180-161T	18	161	TL30MD-180-080T	2 x 18	80				
TL30MS-240-120T	24	120	TL30MD-240-060T	2 x 24	60				



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Product Series	Primary	Single Secondary			Dual Secondary			ta (°C)	Agency Approval
		Part Number	Secondary Rating		Part Number	Secondary Rating			
			(V)	(mA)		(V)	(mA)		
2.9VA	400	TL30HS-060-483T	6	483	TL30HD-060-241T	2 x 6	241	70	--
		TL30HS-072-402T	7.2	402	TL30HD-072-201T	2 x 7.2	201		
		TL30HS-090-322T	9	322	TL30HD-090-161T	2 x 9	161		
		TL30HS-100-290T	10	290	TL30HD-100-145T	2 x 10	145		
		TL30HS-120-241T	12	241	TL30HD-120-120T	2 x 12	120		
		TL30HS-150-193T	15	193	TL30HD-150-096T	2 x 15	96		
		TL30HS-180-161T	18	161	TL30HD-180-080T	2 x 18	80		
		TL30HS-240-120T	24	120	TL30HD-240-060T	2 x 24	60		
3.0VA	230	TL30S-060-500	6	500	TL30D-060-250	2 x 6	250	40	TUV CE CQC
		TL30S-072-416	7.2	416	TL30D-072-208	2 x 7.2	208		
		TL30S-090-333	9	333	TL30D-090-166	2 x 9	166		
		TL30S-100-300	10	300	TL30D-100-150	2 x 10	150		
		TL30S-120-250	12	250	TL30D-120-125	2 x 12	125		
		TL30S-150-200	15	200	TL30D-150-100	2 x 15	100		
		TL30S-180-167	18	167	TL30D-180-083	2 x 18	83		
		TL30S-240-125	24	125	TL30D-240-062	2 x 24	62		
	115	TL30US-060-500	6	500	TL30UD-060-250	2 x 6	250	40	UL5085-1/-2 C-UL
		TL30US-072-416	7.2	416	TL30UD-072-208	2 x 7.2	208		
		TL30US-090-333	9	333	TL30UD-090-166	2 x 9	166		
		TL30US-100-300	10	300	TL30UD-100-150	2 x 10	150		
		TL30US-120-250	12	250	TL30UD-120-125	2 x 12	125		
		TL30US-150-200	15	200	TL30UD-150-100	2 x 15	100		
		TL30US-180-167	18	167	TL30UD-180-083	2 x 18	83		
		TL30US-240-125	24	125	TL30UD-240-062	2 x 24	62		
	115 (Parallel) or 230 (Series)	TL30MS-060-500	6	500	TL30MD-060-250	2 x 6	250	40	UL5085-1/-2 C-UL TUV CE CQC
		TL30MS-072-416	7.2	416	TL30MD-072-208	2 x 7.2	208		
		TL30MS-090-333	9	333	TL30MD-090-166	2 x 9	166		
		TL30MS-100-300	10	300	TL30MD-100-150	2 x 10	150		
TL30MS-120-250		12	250	TL30MD-120-125	2 x 12	125			
TL30MS-150-200		15	200	TL30MD-150-100	2 x 15	100			
TL30MS-180-167		18	167	TL30MD-180-083	2 x 18	83			
TL30MS-240-125		24	125	TL30MD-240-062	2 x 24	62			
400	TL30HS-060-500	6	500	TL30HD-060-250	2 x 6	250	40	--	
	TL30HS-072-416	7.2	416	TL30HD-072-208	2 x 7.2	208			
	TL30HS-090-333	9	333	TL30HD-090-166	2 x 9	166			
	TL30HS-100-300	10	300	TL30HD-100-150	2 x 10	150			
	TL30HS-120-250	12	250	TL30HD-120-125	2 x 12	125			
	TL30HS-150-200	15	200	TL30HD-150-100	2 x 15	100			
	TL30HS-180-167	18	167	TL30HD-180-083	2 x 18	83			
	TL30HS-240-125	24	125	TL30HD-240-062	2 x 24	62			
3.2VA	230	TL30S-060-533	6	533	TL30D-060-266	2 x 6	266	40	TUV CE CQC
		TL30S-072-444	7.2	444	TL30D-072-222	2 x 7.2	222		
		TL30S-090-355	9	355	TL30D-090-177	2 x 9	177		
		TL30S-100-320	10	320	TL30D-100-160	2 x 10	160		
		TL30S-120-266	12	266	TL30D-120-133	2 x 12	133		
		TL30S-150-213	15	213	TL30D-150-106	2 x 15	106		
		TL30S-180-177	18	177	TL30D-180-088	2 x 18	88		
		TL30S-240-133	24	133	TL30D-240-066	2 x 24	66		
	115	TL30US-060-533	6	533	TL30UD-060-266	2 x 6	266	40	UL5085-1/-2 C-UL
		TL30US-072-444	7.2	444	TL30UD-072-222	2 x 7.2	222		
		TL30US-090-355	9	355	TL30UD-090-177	2 x 9	177		
		TL30US-100-320	10	320	TL30UD-100-160	2 x 10	160		
		TL30US-120-266	12	266	TL30UD-120-133	2 x 12	133		
		TL30US-150-213	15	213	TL30UD-150-106	2 x 15	106		
		TL30US-180-177	18	177	TL30UD-180-088	2 x 18	88		
		TL30US-240-133	24	133	TL30UD-240-066	2 x 24	66		



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Product Series	Primary	Single Secondary			Dual Secondary			ta (°C)	Agency Approval
		Part Number	Secondary Rating		Part Number	Secondary Rating			
			(V)	(mA)		(V)	(mA)		
3.2VA	115 (Parallel) or 230 (Series)	TL30MS-060-533	6	533	TL30MD-060-266	2 x 6	266	40	UL5085-1/-2 C-UL TUV CE CQC
		TL30MS-072-444	7.2	444	TL30MD-072-222	2 x 7.2	222		
		TL30MS-090-355	9	355	TL30MD-090-177	2 x 9	177		
		TL30MS-100-320	10	320	TL30MD-100-160	2 x 10	160		
		TL30MS-120-266	12	266	TL30MD-120-133	2 x 12	133		
		TL30MS-150-213	15	213	TL30MD-150-106	2 x 15	106		
		TL30MS-180-177	18	177	TL30MD-180-088	2 x 18	88		
		TL30MS-240-133	24	133	TL30MD-240-066	2 x 24	66		
	400	TL30HS-060-533	6	533	TL30HD-060-266	2 x 6	266	40	--
		TL30HS-072-444	7.2	444	TL30HD-072-222	2 x 7.2	222		
		TL30HS-090-355	9	355	TL30HD-090-177	2 x 9	177		
		TL30HS-100-320	10	320	TL30HD-100-160	2 x 10	160		
		TL30HS-120-266	12	266	TL30HD-120-133	2 x 12	133		
		TL30HS-150-213	15	213	TL30HD-150-106	2 x 15	106		
TL30HS-180-177	18	177	TL30HD-180-088	2 x 18	88				
TL30HS-240-133	24	133	TL30HD-240-066	2 x 24	66				