Section 7 – Technical Information and Technical Tables

In this section of the catalogue, ITC presents some information which may be of practical use to the designer, technician, installer of electrical and electronic products.

- Table of conversion factors (imperial/metric and metric/imperial)
- Decimal and metric equivalents of inch fractions
- Current, power and voltage
- Equivalence table between metric and imperial wire sections
- Table of induction motor current rating
- Temperature conversion table
- Stud selection chart
- Thread tables
- Ingress Protection (IP) table
- List of specific gravity of some materials
- RoHS Directive
- Technical information bulletin on IK ratings for enclosures

ITC Electrical Components

Conversion Factors

Imperial to Metric / S.I.

Length
1 inch = 25.4mm
1 foot = 0.3034 m
1 yard = 0.9144 m
1 mile = 1.60 km

Surface
1 sq. in = 6.452 cm^2
1 sq foot = 0.093 m^2
1 sq yard = 0.836 m^2
1 acre = 0.405 ha
1 sq mile = 259. 1 ha
1 sq mile = 2.590 km^2

Volume
1 cubic inch = 16.3871 cm^3
1 cubic foot = 0.02832 m^3
1 cubic yard = 0.765 m^3

Capacity
1 fluid oz. = 28.4131 ml.
1 pint = 1.137 l
1 liq quart (U.S.) = 0.9463 l
1 gallon (imperial) = 4.546 l
1 gallon (U.S.) = 3.785 l

Weight
1 ounce (Troy) = 31.103 g
1 ounce (avdp.) = 28.35 g
1 pound (Troy) = 373.242 g
1 pound (avdp.) = 453.592 g
1 short ton = 0.907 t
1 long ton = 1.016 t

Velocity
1 fps = 0.3048 m/s
1 fpm = 0.00508 m/s
1 mph = 1.60934 km/h

Power
1 BTU/h (intl.) = 0.23907 W
1 BTU/s (intl.) = 1.05506 kW
1 HP = 1.341 kW

Temperature
1 °F = 1.8 x °C + 32

Torque
1 lb-ft = 1.355 Nm

Energy
1 ft-lb = 1 J

Pressure
1 lb/sq in = 6.8966 kPa

Metric / S.I. to Imperial

Length
1 cm = 0.3937 inches
1 dm = 0.3281 feet
1 m = 3.281 feet
1 m = 1.094 yds.
1 km = 0.6214 miles

Surface
1 cm^2 = 0.155 sq inch
1 m^2 = 10.76 sq ft.
1 m^2 = 1.196 sq yds.
1 ha = 2.471 acres
1 km^2 = 0.386 sq miles.

Volume
1 cm^3 = 0.061 cubic in.
1 dm^3 = 0.035 cubic ft.
1 m^3 = 1.308 cubic yds.

Capacity
1 l = 0.880 pint
1 l = 0.9083 liq quart (U.S.)
1 l = 0.220 gallon (imperial)
1 l = 0.2642 gallon (U.S.)

Weight
1 g = 0.032 ounce (Troy)
1 g = 0.035 ounce (avdp.)
1 kg = 2.679 lb (Troy)
1 kg = 2.205 lb (avdp.)
1 t = 1.102 short tons
1 t = 0.9843 long tons.

Velocity
1 m/s = 3.2808 fps
1 m/s = 196.85 fpm
1 km/h = 0.62137 mph

Power
1 W = 4.1829 BTU/h (intl.)
1 kW = 0.9478 BTU/s (intl.)
1 kW = 0.7457 HP

Temperature
1 °C = 0.555 x (°F - 32)

Torque
1 Nm = 0.738 lb-ft

Energy
1 J = 0.730 ft-lb
1 kWh = 3412 BTU

Pressure
1 kPa = 0.145 lb/sq in

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Fractions / Decimal and metric equivalents

Fraction of inch	decimal equiv	mm equivalent
1/64”	0.0156	0.3968
1/32”	0.0313	0.7929
3/64”	0.0469	1.1898
1/16”	0.0625	1.5867
5/64”	0.0781	1.9836
3/32”	0.0937	2.3805
7/64”	0.1093	2.7774
1/8”	0.1249	3.1743
9/64”	0.1405	3.5712
5/32”	0.1561	3.9681
11/64”	0.1717	4.3650
3/16”	0.1873	4.7619
13/64”	0.2029	5.1588
7/32”	0.2185	5.5557
15/64”	0.2341	5.9526
¼”	0.2500	6.3500
17/64”	0.2653	6.7464
9/32”	0.2809	7.1433
19/64”	0.2965	7.5402
5/16”	0.3121	7.9371
21/64”	0.3277	8.3340
11/32”	0.3433	8.7309
23/64”	0.3589	9.1278
3/8”	0.3745	9.5247
25/64”	0.3901	9.9216
13/32”	0.4057	10.3185
27/64”	0.4213	10.7154
7/16”	0.4369	11.1123
29/64”	0.4525	11.5092
15/32”	0.4681	11.9061
31/64”	0.4837	12.3030
½”	0.5000	12.7000

Fraction of inch	decimal equiv	mm equivalent
33/64”	0.5149	13.0968
17/32”	0.5305	13.4937
35/64”	0.5461	13.8906
9/16”	0.5617	14.2875
37/64”	0.5773	14.6844
19/32”	0.5929	15.0813
39/64”	0.6085	15.4782
5/8”	0.6241	15.8751
41/64”	0.6397	16.2720
21/32”	0.6553	16.6689
43/64”	0.6709	17.0658
11/16”	0.6865	17.4627
45/64”	0.7021	17.8596
23/32”	0.7177	18.2565
47/64”	0.7333	18.6534
¾”	0.7500	19.0500
49/64”	0.7645	19.4472
25/32”	0.7801	19.8441
51/64”	0.7957	20.2410
13/16”	0.8113	20.6379
53/64”	0.8269	21.0348
27/32”	0.8425	21.4317
55/64”	0.8581	21.8286
7/8”	0.8737	22.2255
57/64”	0.8893	22.6224
29/32”	0.9049	23.0193
59/64”	0.9205	23.4162
15/16”	0.9361	23.8131
61/64”	0.9517	24.2100
31/32”	0.9673	24.6069
63/64”	0.9829	25.0038
1”	1.0000	25.4000

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Current, Power and Voltages

Line Current (in Amp) given the Power (in kVA) and the Line Voltage (in Volt) of a 1-phase System						
Power (KVA)	Line Voltage (Volt)					
	120	240	480	600	2400	4160
3	25.0	12.5	6.3	5.0	1.3	0.7
5	41.7	20.8	10.4	8.3	2.1	1.2
7.5	62.5	31.3	15.6	12.5	3.1	1.8
10	83.3	41.7	20.8	16.7	4.2	2.4
15	125.0	62.5	31.3	25.0	6.3	3.6
25	208.3	104.2	52.1	41.7	10.4	6.0
37.5	312.5	156.3	78.1	62.5	15.6	9.0
50	416.7	208.3	104.2	83.3	20.8	12.0
75	625.0	312.5	156.3	125.0	31.3	18.0
100	833.3	416.7	208.3	166.7	41.7	24.0
150	1250.0	625.0	312.5	250.0	62.5	36.1
200	1666.7	833.3	416.7	333.3	83.3	48.1
250	2083.3	1041.7	520.8	416.7	104.2	60.1
333	2775.0	1387.5	693.8	555.0	138.8	80.0

Line Current (in Amp) given the Power (in kVA) and the Line Voltage (in Volt) of a 3-phase System						
Power (KVA)	Line Voltage (Volt)					
	208	240	480	600	2400	4160
6	16.7	14.4	7.2	5.8	1.4	0.8
10	27.8	24.1	12.0	9.6	2.4	1.4
15	41.6	36.1	18.0	14.4	3.6	2.1
30	83.3	72.2	36.1	28.9	7.2	4.2
45	124.9	108.3	54.1	43.3	10.8	6.2
50	138.8	120.3	60.1	48.1	12.0	6.9
75	208.2	180.4	90.2	72.2	18.0	10.4
112.5	312.3	270.6	135.3	108.3	27.1	15.6
150	416.4	360.9	180.4	144.3	36.1	20.8
225	624.6	541.3	270.6	216.5	54.1	31.2
300	832.7	721.7	360.9	288.7	72.2	41.6
450	1249.1	1082.6	541.3	433.0	108.3	62.5
500	1387.9	1202.8	601.4	481.1	120.3	69.4
600	1665.5	1443.4	721.7	577.4	144.3	83.3
750	2081.9	1804.3	902.1	721.7	180.4	104.1
1000	2775.8	2405.7	1202.8	962.3	240.6	138.8
1500	4163.7	3608.5	1804.3	1443.4	360.9	208.2
2000	5551.6	4811.4	2405.7	1924.6	481.1	277.6

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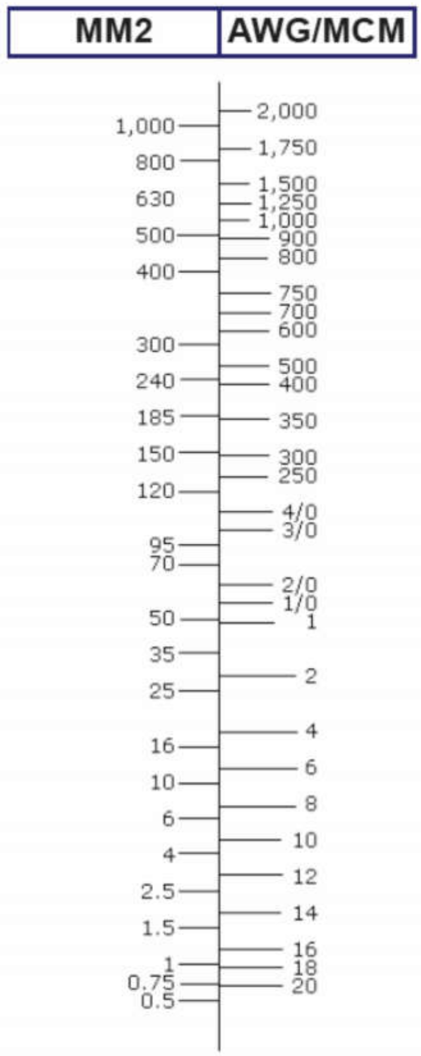
Wire Cross Sections, Metric Equivalent and Wire Diameters

AWG	MM2
30	0.05
28	0.08
26	0.14
24	0.25
22	0.34
21	0.38
22	0.50 UL
20	0.50
19	0.75 UL
18	0.75
18 UL	1.0 UL
17	1.0
16	1.5
14	2.5
12	4
10	6
8	10
6	16
4	25
2	35
1-1/0	50
2/0	70
3/0	95
4/0	120
300 MCM	150
350 MCM	185
500 MCM	240
600 MCM	300
750 MCM	400
1000 MCM	500



***Note:** the values in this table are given as a guide only. Actual diameters may be different depending on stranding and other construction details.*

Resistors Colour Codes

Number	Colour
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Purple
8	Grey
9	White

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Induction Motor Current Rating

(1-Phase and 3-Phase @60Hz) (UL 508)

	1-phase		3-phase		
HP	**110V**	**220V**	**220V**	**440V**	**600V**
¼	5.8	2.9			
1/3	7.2	3.6			
½	9.8	4.9	2.0	1.0	0.8
¾	13.8	6.9	2.8	1.4	1.1
1	16.0	8.0	3.6	1.8	1.4
1 ½	20.0	10.0	5.2	2.6	2.1
2	24.0	12.0	6.8	3.4	2.7
3	34.0	17.0	9.6	4.8	3.9
5	56.0	28.0	15.2	7.6	6.1
7 ½	80.0	40.0	22.0	11.0	9.0
10	100.0	50.0	28.0	14.0	11.0
15	136.0	68.0	42.0	21.0	17.0
20		88.0	54.0	27.0	22.0
25		110.0	68.0	34.0	27.0
30		136.0	80.0	40.0	32.0
40		176.0	104.0	52.0	41.0
50		216.0	130.0	65.0	52.0
60			154.0	77.0	62.0
75			192.0	96.0	77.0
100			248.0	124.0	99.0
125			312.0	156.0	125.0
150			360.0	180.0	144.0
200			480.0	240.0	192.0
250			604.0	302.0	242.0

Note: the values in this table must be used as a guide only. Actual current may be different from the average calculated values above, especially in case of motors having a special construction, or special purpose. Always check the rated current value appearing on the motor nameplate.

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Temperature Conversion Table

°F = 9/5°C + 32
°C = 5/9(°F - 32)
Fahrenheit vs. Centigrade (Celsius)

°F	°C	16.00	-8.89	57.00	13.89	98.00	36.67	178.00	81.11	350.00	176.67
-100.00	-73.33	17.00	-8.33	58.00	14.44	99.00	37.22	180.00	82.22	355.00	179.44
-95.00	-70.56	18.00	-7.78	59.00	15.00	100.00	37.78	182.00	83.33	360.00	182.22
-90.00	-67.78	19.00	-7.22	60.00	15.56	102.00	38.89	184.00	84.44	365.00	185.00
-85.00	-65.00	20.00	-6.67	61.00	16.11	104.00	40.00	186.00	85.56	370.00	187.78
-80.00	-62.22	21.00	-6.11	62.00	16.67	106.00	41.11	188.00	86.67	375.00	190.56
-75.00	-59.44	22.00	-5.56	63.00	17.22	108.00	42.22	190.00	87.78	380.00	193.33
-70.00	-56.67	23.00	-5.00	64.00	17.78	110.00	43.33	192.00	88.89	385.00	196.11
-65.00	-53.89	24.00	-4.44	65.00	18.33	112.00	44.44	194.00	90.00	390.00	198.89
-60.00	-51.11	25.00	-3.89	66.00	18.89	114.00	45.56	196.00	91.11	395.00	201.67
-55.00	-48.33	26.00	-3.33	67.00	19.44	116.00	46.67	198.00	92.22	400.00	204.44
-50.00	-45.56	27.00	-2.78	68.00	20.00	118.00	47.78	200.00	93.33	405.00	207.22
-45.00	-42.78	28.00	-2.22	69.00	20.56	120.00	48.89	205.00	96.11	410.00	210.00
-40.00	-40.00	29.00	-1.67	70.00	21.11	122.00	50.00	210.00	98.89	415.00	212.78
-35.00	-37.22	30.00	-1.11	71.00	21.67	124.00	51.11	215.00	101.67	420.00	215.56
-30.00	-34.44	31.00	-0.56	72.00	22.22	126.00	52.22	220.00	104.44	425.00	218.33
-28.00	-33.33	32.00	0.00	73.00	22.78	128.00	53.33	225.00	107.22	430.00	221.11
-26.00	-32.22	33.00	0.56	74.00	23.33	130.00	54.44	230.00	110.00	435.00	223.89
-24.00	-31.11	34.00	1.11	75.00	23.89	132.00	55.56	235.00	112.78	440.00	226.67
-22.00	-30.00	35.00	1.67	76.00	24.44	134.00	56.67	240.00	115.56	445.00	229.44
-20.00	-28.89	36.00	2.22	77.00	25.00	136.00	57.78	245.00	118.33	450.00	232.22
-18.00	-27.78	37.00	2.78	78.00	25.56	138.00	58.89	250.00	121.11	455.00	235.00
-16.00	-26.67	38.00	3.33	79.00	26.11	140.00	60.00	255.00	123.89	460.00	237.78
-14.00	-25.56	39.00	3.89	80.00	26.67	142.00	61.11	260.00	126.67	465.00	240.56
-12.00	-24.44	40.00	4.44	81.00	27.22	144.00	62.22	265.00	129.44	470.00	243.33
-10.00	-23.33	41.00	5.00	82.00	27.78	146.00	63.33	270.00	132.22	475.00	246.11
-8.00	-22.22	42.00	5.56	83.00	28.33	148.00	64.44	275.00	135.00	480.00	248.89
-6.00	-21.11	43.00	6.11	84.00	28.89	150.00	65.56	280.00	137.78	485.00	251.67
-4.00	-20.00	44.00	6.67	85.00	29.44	152.00	66.67	285.00	140.56	490.00	254.44
-2.00	-18.89	45.00	7.22	86.00	30.00	154.00	67.78	290.00	143.33	495.00	257.22
0.00	-17.78	46.00	7.78	87.00	30.56	156.00	68.89	295.00	146.11	500.00	260.00
2.00	-16.67	47.00	8.33	88.00	31.11	158.00	70.00	300.00	148.89	550.00	287.78
4.00	-15.56	48.00	8.89	89.00	31.67	160.00	71.11	305.00	151.67	600.00	315.56
6.00	-14.44	49.00	9.44	90.00	32.22	162.00	72.22	310.00	154.44	650.00	343.33
8.00	-13.33	50.00	10.00	91.00	32.78	164.00	73.33	315.00	157.22	700.00	371.11
10.00	-12.22	51.00	10.56	92.00	33.33	166.00	74.44	320.00	160.00	750.00	398.89
11.00	-11.67	52.00	11.11	93.00	33.89	168.00	75.56	325.00	162.78	800.00	426.67
12.00	-11.11	53.00	11.67	94.00	34.44	170.00	76.67	330.00	165.56	850.00	454.44
13.00	-10.56	54.00	12.22	95.00	35.00	172.00	77.78	335.00	168.33	900.00	482.22
14.00	-10.00	55.00	12.78	96.00	35.56	174.00	78.89	340.00	171.11	950.00	510.00
15.00	-9.44	56.00	13.33	97.00	36.11	176.00	80.00	345.00	173.89	1000.00	537.78

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Stud Selection Chart

Stud Size	nominal stud	mm Ø	inch Ø
	#2	2.2	.087
	#3	2.7	.106
	#4	3.2	.126
	#6	3.7	.146
	#8	4.3	.169
	#10	5.3	.209
	1/4	6.4	.25
	5/16	8.4	.33
	3/8	10,5	.413
	7/16	11.5	.453
	1/2	13.0	.51
	9/16	15.0	.59

Stud Size	nominal stud	mm Ø	inch Ø
	5/8	17.0	.67
	11/16	19.0	.75
	3/4	21.0	.83
	7/8	23.0	.91
	15/16	25.0	.98
	1	28.0	1.10

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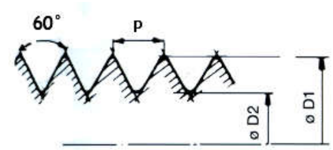
Thread Tables

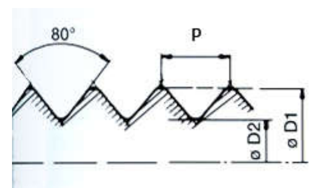
ISO Thread	Pitch (mm)	D1 (mm)	Core D2 (mm)	Cutout (mm)
10 x 1.0	1.0	10	9.0	10.2
M12 x 1.5	1.5	12	10.5	12.2
M16 x 1.5	1.5	16	14.5	16.2
M20 x 1.5	1.5	20	18.5	20.2
M25 x 1.5	1.5	25	23.5	25.2
M32 x 1.5	1.5	32	30.5	32.2
M40 x 1.5	1.5	40	38.5	40.2
M50 x 1.5	1.5	50	48.5	50.2
M63 x 1.5	1.5	63	61.5	63.2

METRIC ISO Thread According to EN 60423



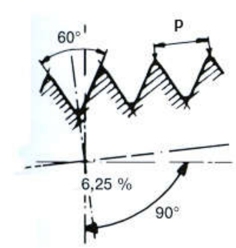
Pg Thread	Pitch (mm)	D1 (mm)	Core D2 (mm)	Cutout (mm)
Pg 7	1.270	12.5	11.28	12.7
Pg 9	1.410	15.2	13.86	15.4
Pg 11	1.410	18.6	17.26	18.8
Pg 13.5	1.410	20.4	19.06	20.7
Pg 16	1.410	22.5	21.16	22.8
Pg 21	1.588	28.3	26.78	28.6
Pg 29	1.588	37.0	35.48	37.4
Pg 36	1.588	47.0	45.48	47.5
Pg 42	1.588	54.0	52.48	54.5
Pg 48	1.588	59.3	57.78	59.8

PG Thread according to DIN 40430



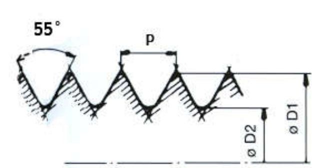
NPT Thread	Pitch (mm)	D1 (mm)	Threads/inch	Cutout (mm)
3/8”	1.411	17.055	18	17.2
1/2”	1.814	21.223	14	21.4
3/4”	1.814	26.568	14	26.9
1”	2.208	33.227	11 ½”	33.7
1 ¼”	2.208	41.984	11 ½”	42.4
1 ½”	2.208	48.053	11 ½”	48.5
2”	2.208	60.091	11 ½”	60.2

NPT Thread



ISO “G” Thread	Pitch (mm)	D2. (mm)	Core D2 (mm)	Cutout (mm)
3/8”	1.337	16.662	14.950	17.0
1/2”	1.814	20.955	18.631	21.3
3/4”	1.814	26.441	24.117	26.8
1”	2.309	33.249	30.291	33.7
1 ¼”	2.309	41.910	38.952	42.4
1 ½”	2.309	47.803	44.845	48.3
2”	2.309	60.091	56.656	60.2

ISO 228 (“Gas”) Thread



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EB-2834-2

Ingress Protection (IP)

Ingress protection for Low Voltage Enclosures is defined by the European Standard IEC 529 as a code comprising 2 letters (IP) and 2 digits.

The first digit (between 0 and 6) indicates the degree of protection provided with respect to the equipment contained in the enclosure.

The second digit (between 0 and 9) indicates the degree of protection with respect to the harmful effects of liquid penetration.

Since the definitions are different, there is no exact equivalence between European IP Ingress Protection ratings, and North American NEMA ratings.

1st digit

IP	Description
0	No protection
1	Protection against solid objects greater than 50mm
2	Protection against solid objects greater than 12.5mm
3	Protection against solid objects greater than 2.5mm
4	Protection against solid objects greater than 1.0mm
5	Protection against penetration of dust
6	Dust-tight

2nd digit

IP	Description
0	No protection
1	Protection against dripping water
2	Protection against dripping water when tilted up to 15°
3	Protection against spraying water
4	Protection against splashing water
5	Protection against water jets
6	Protection against heavy seas
7	Protection against the effects of immersion
8	Protection against submersion
9K	Protection against high pressure, high temperature liquid (80°C) or steam

Example: an enclosure rated **IP54** is protected against penetration of dust, and against splashing water.

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Specific Gravity of Common Materials

Material	Specific gravity (Kg/dm^3)
Acrylonitryl-Buthadiene-Styrene (ABS)	0.99 - 1.01
Air (dry)	0.0013
Aluminum	2.70
Brass	8.40 - 8.70
Bronze	7.40 - 8.90
Carbon Monoxide	0.0019
Cast iron	7.10
Cellulose	1.50
Copper	8.80 - 8.92
Diamond	3.51
Diesel Oil	0.80 - 0.85
Epoxy Resin	1.20
Ethyl Alcohol 95%	0.81
Gasoline	0.70 - 0.76
Glass	2.40 - 2.70
Gold	19.30
Grease	0.92 - 0.94
Hydrogen	0.0009
Ice	0.90
Lead	11.34
Mercury	13.60
Mineral Oil	0.85 - 0.95
Oxygen	0.0015
Paper	0.70 - 1.10
Platinum	21.45
Polyamide (PA)	1.04 - 1.50
Polypropylene (PP)	0.91
Polystyrene (PS)	0.94 - 1.00
Polyvinyl Chloride, soft (PVC)	0.96 - 0.98
Rubber	1.70 - 2.20
Silver	10.50
Steel	7.85
Sulphuric Acid	1.83
Tin	7.28
Water	1.00
Zinc	7.14

Note: the values in this table are average values and must be used as a guide only. In most cases, specific gravity (AKA: Specific Weight or Specific Density) varies with temperature, pressure, content of impurities, etc…

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RoHS Directive

(Restriction of Hazardous Substances)

The European Directive 2002/95/EC dated January 23, 2003, is related to the **restriction of use of some hazardous substances in electrical and electronic equipment**.

Such directive (Art. 4.1) specifies that *"from July 1st of 2006, new electrical and electronic equipment put on the market must not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) or polybrominated diphenil ethers (PBDEs)"*.

Remarks:

- The RoHS Directive mentioned above is a European Directive. As such, it applies only to equipment put on the market in the European Union.
- The RoHS Directive does not require any product marking. CE marking is not related to compliance to the RoHS Directive.
- The RoHS Directive does not require the producer of an equipment to obtain third party's certification.
- There are a number of products exempted from compliance to the Directive above, notably:
  - Mercury in compact and straight fluorescent lamps (to certain limits)
  - Lead used in compliant pin connector systems
  - Lead and cadmium in optical glass
  - Cadmium and its compounds in electrical contacts
  - Batteries and accumulators
  - Spare parts put on the market before July 1st, 2006

Note also that another Directive (76/769/EEC dated July 27th, 1976 and its modifications), applies to some extent to the restrictions in the use of hazardous substances, as it limits the use of pentabromodiphenyl ether and octabromodiphenyl ether in certain industrial and consumer products.

Products described in this catalogue, which fall under the provision of the Directive above, are compliant. For further detail, contact ITC.

More information on this matter can be obtained from the website:
http://ec.europa.eu/environment/waste/weee/legis_en.htm

This document is for information purposes only and has no legal standing. It should not be substituted for professional legal advice.

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TECHNICAL INFORMATION BULLETIN 2014-02

IK Rating for Enclosures

The European standard **EN 62262** - the equivalent of international standard IEC 62262 (2002) - relates to IK ratings. This is an international numeric classification for the degrees of protection provided by enclosures for electrical equipment against external mechanical impacts. It provides a means of specifying the capacity of an enclosure to protect its contents from external impacts. The **IK Code** was originally defined in European Standard BS EN 50102 (1995, amended 1998). Following its adoption as an international standard in 2002, the European standard was renumbered EN 62262.

Before the advent of the IK code, a third numeral had been occasionally added to the closely related IP Code on ingress protection, to indicate the level of impact protection — e.g. IP66(9). Nonstandard use of this system was one of the factors leading to the development of this standard, which uses a separate two numeral code to distinguish it from the old differing systems. The standard came into effect in October 1995 and conflicting national standards had to be withdrawn by April 1997.

EN 62262 specifies the way enclosures should be mounted when tests are carried out, the atmospheric conditions that should prevail, the number of impacts (5) and their (even) distribution, and the size, style, material, dimensions etc. of the various types of hammer designed to produce the energy levels required.

The following table gives the meaning of the IK rating code, related to the impact energy that the test element (enclosure) must withstand:

IK code	**IK00**	**IK01**	**IK02**	**IK03**	**IK04**	**IK05**	**IK06**	**IK07**	**IK08**	**IK09**	**IK10**
Impact energy (joule)	*	0.14	0.2	0.35	0.5	0.7	1	2	5	10	20

Remember that a JOULE is the universal Unit for Energy (as such, for example, it cannot be converted to WATTS, which are units of Power). However, the power P in watts (W) is equal to the energy E in joules (J), divided by the time period t [the time during which the energy is applied] in seconds (s):

$$P_{(W)} = E_{(J)} / t_{(s)}$$

To get a feeling of how an IK10 impact test is made, watch this video on youtube:
https://www.youtube.com/watch?v=Uln9pRpmD0Q

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