

SPECIFICATION

For


MEA TYPE A (0080)

(60227 IEC 01 THW)

450/750V 70°C Copper Conductor

PVC Insulated Single Core

(450/750V, Cu/PVC)

BY 

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MANAGER, Cable Design Section

Rev.	Date	Description
0	22/9/2020	Issued specification
1	18/9/2023	Add size 185 mm ²
2	19/5/2025	Update specification

APP. _____

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CUSTOMER

Customer Document	Rev.
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Remark:

This document is based on the Customer Document for the structure and properties of electric wire and cable only. If there are different points, will be shown in deviation table.

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1. Scope

This specification covers 450/750V copper conductor polyvinyl chloride (PVC) insulated single core.

Maximum conductor temperature shall be 70°C.

The cable shall be in accordance with TIS 11 Part 3-2553, Table 1 and MEA's specification No. S-011/2556.

2. Conductor

The conductor shall be solid and non-compacted concentric stranded uncoated annealed copper conductor in accordance with TIS 2427-2552, Class 1 and Class 2.

The direction of lay shall be left-hand (S) lay in the outermost layer.

3. Insulation

The insulation shall be polyvinyl chloride (PVC/C) compound meet the requirements of TIS 11 Part 3-2553.


The average thickness of the insulation shall be not less than that given in Table 1.

The minimum thickness shall not fall below the value in Table 1 by more than 10% plus 0.1 mm.

The color of the insulation shall be black.

4. Marking on Cable

The marking items shall be marked with suitable means throughout the length of cable.

1. Manufacturer's name and/or trade mark "  YAZAKI..... : TYE"
2. Designation "MEA TYPE A 60227 IEC 01 THW "
3. Rated voltage "450/750V "
4. Insulation material "PVC"
5. Max. operating rated temperature at conductor "70°C"
6. Number of core and size of conductor
7. TIS logo and standard number
8. The purchase contract number
9. The continuous reel length marking (in figure) shall be made on the insulation at every 1 meter (For size $\geq 16 \text{ mm}^2$)

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5. Test and Properties


The test and properties of wire shall be carried out in accordance with TIS 11 Part 3-2553, TIS 2427-2552. and MEA's specification No. S-011/2556.

6. Packing

The finished wire shall be placed on the non-returnable wooden reels.

The reels shall be lagged to provide the cable with physical protection during transportation and during ordinary storage and handling operation.

Each package shall be clearly marked as follows.

1. Rated voltage "450/750V "
2. Max. operating rated temperature at conductor "70°C"
3. Designation " MEA TYPE A (0080)
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4. Number of core and size of conductor
5. Cable length
6. Net and gross weight
7. Month and year of manufacture
8. Rolling direction of reel
9. Manufacturer's name and/or trade mark "  **YAZAKI** "
10. TIS logo and standard number
11. Drum number

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Table 1

Size (mm ²)	Conductor			Insulation thickness nominal (mm)	Overall diameter average (mm)		Conductor resistance at 20 °C maximum (Ohm/km)	Insulation resistance at 70 °C minimum (MOhm-km)	Weight approx. (kg/km)	Standard length (m)
	No. of wires (wires)	Type	Diameter approx. (mm)		Minimum	Maximum				
1.5	1	Solid	1.38	0.7	2.6	3.2	12.1	0.011	20	500
2.5	1	Solid	1.78	0.8	3.2	3.9	7.41	0.010	32	500
4 (st)	7	Non-compacted	2.55	0.8	3.8	4.6	4.61	0.0077	51	500
6	7	Non-compacted	3.12	0.8	4.3	5.2	3.08	0.0065	72	500
10	7	Non-compacted	4.10	1.0	5.6	6.7	1.83	0.0065	119	500
16	7	Non-compacted	5.10	1.0	6.4	7.8	1.15	0.0050	178	500
25	7	Non-compacted	6.26	1.2	8.1	9.7	0.727	0.0050	268	500
35	19	Non-compacted	7.65	1.2	9.0	10.9	0.524	0.0043	374	500
50	19	Non-compacted	8.73	1.4	10.6	12.8	0.387	0.0043	488	500
70	19	Non-compacted	10.70	1.4	12.1	14.6	0.268	0.0035	710	500
95	19	Non-compacted	12.60	1.6	14.1	17.1	0.193	0.0035	984	500
120	37	Non-compacted	14.21	1.6	15.6	18.8	0.153	0.0032	1228	500
185	37	Non-compacted	17.64	2.0	19.3	23.3	0.0991	0.0032	1889	500
240	61	Non-compacted	20.25	2.2	22.0	26.6	0.0754	0.0032	2466	500

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