

## BUREAU OF INDIAN STANDARDS

### Program of Work

#### ETD 21 : Electric Welding Equipment

**Scope:** To prepare standards on the construction, performance, testing and safety requirements for electric welding equipment and accessories for both arc and resistance type

**Liaison:** **IEC TC-26 (O):** *Electric welding*

### Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 16593 (Part 1):2024 60974-1:2021 <a href="#">60974-1:2021</a>	Arc Welding Equipment Part 1: Welding Power Sources		-	Identical under dual numbering
2	IS 16593 (Part 2):2023 IEC 60974-2 : 2019 <a href="#">IEC 60974-2 : 2019</a>	Arc Welding Equipment Part 2: Liquid Cooling Systems (First Revision)		-	Identical under dual numbering
3	IS 16593 (Part 3):2023 IEC 60974-3: 2019 <a href="#">IEC 60974-3: 2019</a>	Arc welding equipment Part 3: Arc striking and stabilizing devices (First Revision)		-	Identical under dual numbering
4	IS 16593 (Part 4):2022 IEC 60974-4 : 2016 <a href="#">IEC 60974-4 : 2016</a>	Arc welding equipment: Part 4 Periodic inspection and testing		-	Identical under dual numbering
5	IS 16593 (Part 5):2023 IEC 60974-5 : 2019 <a href="#">IEC 60974-5 : 2019</a>	Arc welding equipment Part 5: Wire feeders (First Revision)		-	Identical under dual numbering
6	IS 16593 (Part 6):2022 IEC 60974-6 : 2015 <a href="#">IEC 60974-6 : 2015</a>	Arc welding equipment: Part 6 Limited duty equipment		-	Identical under dual numbering
7	IS 16593 (Part 7):2022 IEC 60974-7 : 2019 <a href="#">IEC 60974-7 : 2019</a>	Arc welding equipment - Part 7 : Torches		-	Identical under dual numbering
8	IS 16593 (Part 8):2023 IEC 60974-8: 2021 <a href="#">IEC 60974-8: 2021</a>	Arc welding equipment Part 8: Gas consoles for welding and plasma cutting systems (First Revision)		-	Identical under dual numbering
9	IS 16593 (Part 9):2021 IEC 60974-9 : 2018 <a href="#">IEC 60974-9 : 2018</a>	Arc welding equipment: Part 9 Installation and use		-	Identical under dual numbering
10	IS 16593 (Part 10):2023	Arc welding equipment Part 10: Electromagnetic compatibility		-	Identical under dual numbering

	IEC 60974-10 : 2020 IEC 60974-10 : 2020	EMC requirements (First Revision)			
11	IS 16593 (Part 11):2023 IEC 60974-11 : 2021 IEC 60974-11 : 2021	Arc welding equipment Part 11: Electrode holders		-	Identical under dual numbering
12	IS 16593 (Part 12):2024 60974-12:2022 60974-12:2022	Arc Welding Equipment Part 12 Coupling Devices for Welding Cables (First Revision)		-	Identical under dual numbering
13	IS 16593 (Part 13):2022 IEC 60974-13 : 2021 IEC 60974-13 : 2021	Arc welding equipment Part 13: Welding current return clamp		-	Identical under dual numbering
14	IS 16593 (Part 14):2024 60974-14:2018 60974-14:2018	Arc welding equipment Part 14: Calibration validation and consistency testing		-	Identical under dual numbering
15	IS 17816 (Part 1):2022 IEC 62135-1 : 2015 IEC 62135-1 : 2015	Resistance welding equipment: Part 1 Safety requirements for design manufacture and installation		-	Identical under dual numbering
16	IS 17816 (Part 2):2022 IEC 62135-2 : 2020 IEC 62135-2 : 2020	Resistance welding equipment Part 2: Electromagnetic compatibility EMC requirements		-	Identical under dual numbering
17	IS 18483 (Part 1):2024 62822-1:2016 62822-1:2016	Electric welding equipment Assessment of restrictions related to human exposure to electromagnetic fields 0 Hz to 300 GHz Part 1: Product family standard		-	Identical under dual numbering
18	IS 18483 (Part 2):2024 62822-2:2016 62822-2:2016	Electric welding equipment Assessment of restrictions related to human Exposure to electromagnetic fields 0 Hz to 300 GHz Part 2: Arc welding equipment		-	Identical under dual numbering
19	IS 18483 (Part 3):2025 IEC 62822-3:2023 IEC 62822-3:2023	Electric welding equipment Assessment of restrictions related to human Exposure to electromagnetic fields 0 Hz to 300 GHz Part 3: Resistance welding equipment		-	Identical under dual numbering
20	IS 2641:1989 Reviewed In : 2020 BS 638 : 1984 IEC Document 26 (Secretariat) 36 : 1981 Draft	Electric welding accessories - Specification (First Revision)	July, 2020	-	Modified/Technically Equivalent
21	IS 4804 (Part 1):1968 Reviewed In : 2020 Draft ISO Recommendation No. 974, B.S.	Specification for resistance welding equipment: Part 1 single - Phase transformers	July, 2020	-	Modified/Technically Equivalent

	3065-1959, Bull. No. 16. 1966.				
22	IS 4804 (Part 2):1968 Reviewed In : 2020	Specification for resistance welding equipment: Part 2 single - Phase rocker - Arm spot welding machines	July, 2020	1	Indigenous
23	IS 4804 (Part 3):1969 Reviewed In : 2020	Specification for resistance welding equipment: Part 3 single - Phase spot and projection welding machines	July, 2020	1	Indigenous
24	IS 4804 (Part 4):1973 Reviewed In : 2020	Specification for resistance welding equipment: Part 4 single phase stationary, press type roll - Spot and seam welding machines	July, 2020	-	Indigenous

Standards under Development

Projects Approved		
SI. No.	Doc No.	Title
No Records Found		

Preliminary Draft Standards		
SI. No.	Doc No.	Title
No Records Found		

Drafts Standards in WC Stage		
SI. No.	Doc No.	Title
No Records Found		

Draft Standards Completed WC Stage		
SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standard		
SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standards under Print		
SI. No.	Doc No.	Title
No Records Found		

Total Published Standards:20    Total Standards Under development:0		
---	--	--

Aspect Wise Report

Product : 10

Code of Practices : 4

Methods of Test : 2

Terminology : 0

Dimensions : 0

System Standard : 0

Safety Standard : 0  
Others : 8  
Service Specification : 0  
Process Specification : 0  
Unclassified : 0

### Annexure-I :List of Indian Standards Withdrawn/Superseded

Sl. No.	IS No. & Year	Title
1	IS 13339:1992 Reviewed In : 2017 BS 635 : 1979, iec doc 16 central office 19-1-11	Multi - Operator type arc welding transformers - Specification
2	IS 1851:1997 Reviewed In : 2017 ISO 700 : 1982, BS 638 (Part 10) : 1990	Single operator type arc welding transformers - Specification
3	IS 2635:1997 Reviewed In : 2022 ISO 700 : 1982, BS 638 (Part 10) : 1990	DC electric welding generators - Specification Third Revision
4	IS 4559:1993 Reviewed In : 2019 ISO 700:1982	Single operator rectifier type dc arc welding power source - Specification Second Revision
5	IS 6008:1989 Reviewed In : 2019 a) ISO 700-1982 Power sources for manual metal arc welding with covered electrodes and for the TIG	Arc welding power source single operator rectifier type AC and DC - Specification First Revision
6	IS 7931 (Part 1):1975 Reviewed In : 2019 ISO Dot TA-76/ 72/ E , Document No. 7 I/ 42369 , NEMA EW-1-1971	Specification for automatic and semi - Automatic welding equipment with self - Adjusting arcs Migimag Processes Part 1 DC welding generator power source
7	IS 7931 (Part 2):1975 Reviewed In : 2019 ISO Dot TA-76/ 72/ E , Document No. 7 I/ 42369 , NEMA EW-1-1971	Specification for automatic and semi - Automatic welding equipment with self-adjusting arcs Mig mag Processes Part 2 transformer - Rectifier power source
8	IS 7931 (Part 3):1975 Reviewed In : 2019 ISO Dot TA-76/ 72/ E , Document No. 7 I/ 42369 , NEMA EW-1-1971	Specification for automatic and semi - Automatic welding equipment with self - Adjusting arcs Mig mag Processes Part 3 welding gun and ancillary equipment
9	IS 8804:1993 Reviewed In : 2019 IEC Publication 501 ( 1975 ) , BS 638 : 1966	Plugs sockets terminal arrangements and welding cable connectors for manual welding equipment - Specification First Revision
10	IS 9604:1994 Reviewed In : 2019 Dot : ISO/TC 44.%X (Secretariat -20 1975	Tungsten - Inertgas Tig welding equipment - Specification First Revision

### Annexure-II :List of Indian Product Standards

Sl. No.	IS No. & Year	Title
1	IS 16593 (Part 1):2024	Arc Welding Equipment Part 1 Welding Power Sources

	60974-1:2021	
2	IS 16593 (Part 6):2022 IEC 60974-6 : 2015 ISO/TS 20224-5:2020	Arc welding equipment Part 6 Limited duty equipment
3	IS 16593 (Part 7):2022 IEC 60974-7 : 2019	Arc welding equipment - Part 7 Torches
4	IS 16593 (Part 12):2024 60974-12:2022	Arc Welding Equipment Part 12 Coupling Devices for Welding Cables First Revision
5	IS 17816 (Part 1):2022 IEC 62135-1 : 2015 ISO 3377-1:2011	Resistance welding equipment Part 1 Safety requirements for design manufacture and installation
6	IS 2641:1989 Reviewed In : 2020 BS 638 : 1984 IEC Document 26 (Secretariat) 36 : 1981 Draft	Electric welding accessories - Specification First Revision
7	IS 4804 (Part 1):1968 Reviewed In : 2020 Draft ISO Recommendation No. 974, B.S. 3065-1959, Bull. No. 16. 1966.	Specification for resistance welding equipment Part 1 single - Phase transformers
8	IS 4804 (Part 2):1968 Reviewed In : 2020	Specification for resistance welding equipment Part 2 single - Phase rocker - Arm spot welding machines
9	IS 4804 (Part 3):1969 Reviewed In : 2020	Specification for resistance welding equipment Part 3 single - Phase spot and projection welding machines
10	IS 4804 (Part 4):1973 Reviewed In : 2020	Specification for resistance welding equipment Part 4 single phase stationary press type roll - Spot and seam welding machines