

BHARAT MACHINES

WELDING MACHINES

1. TRANSFORMER TYPE



ARC WELDING BOLT-TYPE SINGLE HOLDER

Technical Specifications

SPECIFICATION	UNIT	TAW - 10B	TAW - 20B	TAW - 25B	TAW - 35B
Input voltage	Volt	220+15%	230/415+15%	230/415+15%	230/415+15%
Phase	No	1	1&2	1&2	1&2
Frequency	Hz	50/60	50/60	50/60	50/60
KVA Rating	KVA	8	14	18	18
Welding current range	Amps	20-100	20-200	40-250	40-350
Open current voltage	Volt	45	50	55	55
Welding current @60% duty cycle	Amps	100	200	250	350
Welding current @100% duty cycle	Amps	70	150	190	290
Suitable welding electrode size	mm	1.6 – 3.15	1.6 – 3.15	1.6 – 3.15	1.6 – 3.15
Insulation	Class	H	H	H	H
Cooling	Type	Natural	Natural	Natural	Natural
Output current regulation	Type	Step Type	Step Type	Step Type	Step Type
Dimensions (LxWxH)	mm	275x275x275	324x375x400	350x450x550	425x500x550

Weight (approx)	kg	32	51	65	80
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ARC WELDING REGULATOR-TYPE SINGLE HOLDER

Technical Specifications

SPECIFICATION	UNIT	TAW – 35R	TAW – 45R	TAW – 60R
Input voltage	Volt	230/415+15%	230/415+15%	230/415+15%
Phase	No	1&2	1&2	1&2
Frequency	Hz	50/60	50/60	50/60
KVA Rating	KVA	22.5	24.5	28
Welding current range	Amps	40-350	50-450	60-600
Open current voltage	Volt	50	50	60
Welding current @60% duty cycle	Amps	350	450	600
Welding current @100% duty cycle	Amps	290	390	485
Suitable welding electrode size	mm	1.6 – 3.15	1.6 – 4.0	1.6 – 6.0
Insulation	Class	H	H	H
Cooling	Type	Natural	Natural	Natural
Output current regulation	Type	Step Less	Step Less	Step Less
Dimensions (LxWxH)	mm	425x500x550	450x525x625	475x550x625
Weight (approx)	kg	102	135	150



ARC WELDING REGULATOR-TYPE DOUBLE HOLDER

Technical Specifications

SPECIFICATION	UNIT	TAW – 45D	TAW – 60D
Input voltage	Volt	230/415+15%	415+15%
Phase	No	1&2	2
Frequency	Hz	50/60	50/60
KVA Rating	KVA	35	42.5
Welding current range	Amps	50-450	50-600
Open current voltage	Volt	60	60
Welding current @60% duty cycle	Amps	450	600
Welding current @100% duty cycle	Amps	380	490
Suitable welding electrode size	mm	1.6 – 4.0	1.6 – 6.0
Insulation	Class	H	H
Cooling	Type	Natural	Natural
Output current regulation	Type	Step Less	Step Less
Dimensions (LxWxH)	mm	475x750x625	475x750x625
Weight (approx)	kg	210	230



MIG WELDING

Technical Specifications

SPECIFICATION	UNIT	TMW - 30	TMW - 45	TMW - 60
Input voltage	Volt	220 & 415V, 1 & 3 PH	415±10%, 3 PH	415±10%, 3 PH
Mx. KVA @60% duty cycles	KVA	9	19	29
Open Circuit Voltage	V.DC	16 to 36	18 to 50	19 to 58
Welding current @60% duty cycle	Amps	300	450	600
Welding current @100% duty cycle	Amps	215	380	480
Cooling	-	Forced Air	Forced Air	Forced Air
Protection Class	-	IP23	IP23	IP23
Dimensions (LxWxH)	mm	900x500x920	900x500x920	900x500x920
Weight(Approx)	Kg	125	160	200
DriveSystem	-	2 Roll, Servo Motor	4 Roll, Servo Motor	4 Roll, Servo Motor
Wire Feed Speed	m/min.	0.5~24	0.5~22	1.2~18
Wire Diameter	mm	0.8~1.0	0.8~1.6	0.8~1.6
Weight(Approx)	kg	17	17	17
Rated Current	Amps	300	450	600



SPOT WELDING

Technical Specifications

SPECIFICATION	UNIT	TSW-8	TSW-10	TSW-15	TSW-20	TSW-25	TSW-30
Input voltage	Volt	220/415+15 %	220/415+15 %	220/415+15 %	415+15%	415+15%	415+15%
Phase	No	1&2	1&2	1&2	2	2	2
Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
KVA Rating	KVA	8	10	15	20	25	30
Suitable for Welding Sheet	mm	0.7 + 0.7	1.2 + 1.2	2.0 + 2.0	2.5 + 2.5	3.0 + 3.0	4.0 + 4.0
Automation Grade	Type	Manual	Manual	Manual	Manual	Manual	Manual
Max. Electrode Stroke	mm	40	50	50	75	85	98
Cooling	Type	Natural	Natural	Natural	Natural	Natural	Natural
Weight (approx)	Kg	90	110	140	185	200	230

2. INVERTER TYPE



ARC WELDING

Technical Specifications

SPECIFICATION	IAW-20	IAW-25	IAW -30	IAW -40	IAW -63
PHASE (No.)	1	1	1 & 2	3	3
TYPE	IGBT	MOSFET	MOSFET	MOSFET	IGBT Module
INPUT VOLTAGE (V)	AC230V±15 %	AC230V±15 %	AC230V/ 415V±15%	AC415V±15 %	AC415V±15 %
INPUT POWER CAPACITY (KVA)	6	7.4	9.4	18.2	36
NO-LOAD VOLTAGE (V)	58	58	66	68	85
OUTPUT CURRENT RANGE (A)	10 - 200	10 - 250	20 - 300	30 - 400	50 - 630
RATE INPUT CURRENT (A)	43.6	43.6	14.4	27.7	53.1
POWER FACTOR	0.73	0.73	0.93	0.93	0.93
NET WEIGHT (KG)	6	10	13.5	24.5	44
DIMENSION (INCH)	15.5 x 6 x 11.5	16 x 6 x 12	20 x 8 x 15	22.5 x 12 x 20	25.5 x 12 x 25
PLATE THICKNESS (MM)	2.0 - 6.0	2.0 - 8.0	2.0 - 10.0	2.0 - 20.0	2.0 - 60.0
ELECTRODE SIZE (MM)	2.0 - 3.2	2.0 - 3.2	2.0 - 4.0	2.0 - 5.0	2.0 - 6.3



MIG WELDING

Technical Specifications

SPECIFICATION	IMW-25	IMW-40	IMW-63
PHASE (No.)	3	3	3
TYPE	MOSFET	IGBT Module	IGBT Module
INPUT VOLTAGE (V)	AC415V±15%	AC415V±15%	AC415V±15%
INPUT POWER CAPACITY (KVA)	8.5	14	35
OUTPUT VOLTAGE ADJUSTMENT (V)	26.5	31.5	44
OUTPUT CURRENT RANGE (A)	50 - 250	50 - 400	80 - 630
WIRE FEEDER SPEED (MTR/MIN)	2.5 - 18	3 - 24	3 - 24
POWER FACTOR	0.93	0.93	0.93
NET WEIGHT (KG)	21	36	50
DIMENSION (INCH)	20 x 8 x 15	21.5 x 11 x 21.5	25.5 x 12 x 25
MIG WIRE DIAMETER (MM)	0.6 - 1.0	0.8 - 1.2	0.8 - 1.6



PLASMA CUTTER

Technical Specifications

SPECIFICATION	IPC-40	IPC-70	IPC-100	IPC-160
PHASE (No.)	1	3	3	3
TYPE	MOSFET	MOSFET	IGBT Module	IGBT Module
INPUT VOLTAGE (V)	AC230V±15%	AC415V±15%	AC415V±15%	AC415V±15%
INPUT POWER CAPACITY (KVA)	6.6	7.8	15.1	29
NO-LOAD VOLTAGE (V)	253	240	290	320
OUTPUT CURRENT RANGE (A)	15 - 40	20 - 70	20 - 100	20 - 160
RATE INPUT CURRENT (A)	30	12	23.1	44.3
POWER FACTOR	0.73	0.93	0.93	0.93
AIR PRESSURE (KG)	4 - 5	4 - 5	4 - 5	4 - 6
NET WEIGHT (KG)	9	19	36.5	60
DIMENSION (INCH)	15.5 x 6 x 12	20 x 8 x 15	21.5 x 11 x 21.5	26.5 x 13 x 20
CUTTING THICKNESS (MM)	0.3 - 6.0	0.3 - 12.0	1.0 - 30.0	1.0 - 45.0



TIG WELDING

Technical Specifications

SPECIFICATION	ITW-20	ITW-3	ITW-40	ITW-50
Phase (No.)	1	1	3	3
Type	MOSFET	MOSFET	IGBT	IGBT Module
Input Voltage (V)	AC230V±15%	AC230V±15%	AC415V±15%	AC415V±15%
Input Power Capacity (KVA)	6	6.5 / 9.4	13.1 / 18.2	18
No-Load Voltage (V)	56	60	65	54
Output Current Range (A)	10 - 200	7 - 300	7 - 400	10 - 500
Rate Input Current (A)	28	9.6 / 14.4	20 / 27.7	53
Arc Ignition	HF	HF	HF	HF
Power Factor	0.73	0.93	0.93	0.93
Net Weight (KG)	15	19	24	60
Dimension (INCH)	20 x 8 x 18	20 x 8 x 15	20.5 x 10.5 x 21.5	27 x 18 x 32
Plate Thickness (mm)	Steel: 0.3 - 4.0 Alum: -	0.3 - 8.0 / 2.0 - 10.0	0.5 - 12.0 / 2.0 - 20.0	Alum: 0.8 - 30.0 Steel: 0.3 - 30.0
Electrode Size (mm)	-	2.0 - 4.0	2.0 - 5.0	-