

UL TYPE EXAMINATION CERTIFICATE

Low Voltage Directive 2014/35/EU

Certificate No.	UL TEC-00623
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Date of Issue	2017-08-01
Applicant	WAAREE ENERGIES LTD 602, Western Edge-I, Off. Western Express Highway, Borivali(E), Mumbai 400066, Maharashtra, India
Manufacturer	WAAREE ENERGIES LTD Plot No.231-236, Surat Special Economic Zone, Diamond Park, Sachin, Surat, Gujarat 394230, India
Product Sample Description	Photovoltaic (PV) Module(s)
Designation	WS-3, WS-5, WS-6, WS-8, WS-10, WS-12, WS-15, WS- 18, WS-20, WS-24, WS- 25, WS-30, WS-35, WS- 37, WS-40, WS- 45, WS-50, WS-51, WS-52, WS-53, WS-54, WS-55, WS- 60, WS-65, WS-70, WS-74, WS- 75, WS-80, WS-85, WS-90, WS-95, WS-330, WS- XXX (XXX – 100 to 320 with 5 W of interval) WSM-XXX (XXX denotes 255W to 300W with 5W of interval) WSM-XXX (XXX denotes 320W to 360W with 5W of interval)
Ratings	Maximum System Voltage: 1000 V Maximum Series Fuse: 15 A. See page 3 to page 14
Product Sample Tested and found in compliance with Standard(s)	EN 61730-1:2007+A1:2012+A2:2013+A11:2014 EN 61730-2:2007+A1:2012 EN 61215:2005, 2nd Edition
Test Report Nos.	4787879027-NABL-S1-TRF dated 2017-05-05 4787879027-NABL-S2-TRF1 dated 2017-05-05 4787879027-NABL-S2-TRF2 dated 2017-05-05 See history of the reports on page 2
Additional information	NA

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein has been investigated and found to have been in compliance with the above mentioned harmonized Standard(s) per Article 12 of Directive 2014/35/EU of the European Parliament of the Council of 26 February 2014 on the harmonisation of the laws of Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits, in accordance with the UL Type Examination Certificate Program Requirements.

As stated in Article 6 of Directive 2014/35/EU, "When placing their electrical equipment on the market, manufacturers shall ensure that it has been designed and manufactured in accordance with the safety objectives referred to in Article 3 and set out in Annex I" and "Manufacturers shall draw up the technical documentation referred to in Annex III and carry out the conformity assessment procedure referred to in Annex III or have it carried out". This remains the responsibility of the manufacturer and is not covered as part of this certificate.

This certificate and test results obtained apply only to the product sample(s) submitted by the Applicant. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured products. UL has not established Follow-Up Service or other surveillance of the product. The Applicant/ Manufacturer are solely and fully responsible for any declaration of ongoing conformity of all products to all applicable Standard(s), specifications or requirements. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Certification Body **UL International Demko A/S, Borupvang 5A,
DK-2750 Ballerup, Denmark, Tel. +45 44 85 65 65,
info.dk@ul.com, www.ul-europe.com**



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Models and ratings:

WS-3/6V, WS-3/12V, WS-6/12V WS-5/6V, WS-5/12V, WS-6/12V, WS-8/12V, WS-10/6V, WS-10/12V, WS-12/6V, WS-12/12V, WS-15/6V, WS-15/12V, WS- 18/6V, WS-18/12V, WS-20/6V, WS-20/12V, WS-24/12V, WS-24/24V, WS- 25/12V, WS-30/12V, WS-35/12V, WS-37/12V, WS-40/12V, WS- 45/12V, WS-50/12V, WS-50/24V, WS-51/12V, WS-52/12V, WS-53/12V, WS-54/12V, WS-55/12V, WS- 60/12V, WS-60/24V, WS-65/12V, WS-70/12V, WS-74/12V, WS-74/24V, WS- 75/12V, WS-75/24V, WS-80/12V, WS-80/24V, WS-85/12V, WS-90/12V, WS-90/24V, WS-95/12V (With both 36 cell for 12V and 72 cell for 24V)

WS- XXX/12V (XXX – 100W to 150W with 5 W of interval)

WS-XXX/24V (XXX – 150W to 170W with 5W of interval)

WS-XXX/12V, WS-XXX/24V (XXX – 190W to 250W with 10W of interval)

WS-XXX/24V (XXX – 255W to 310W with 5W of interval),

WS-140, WS-175, WS-180, WS-185, WS-190, WS-195, WS-200, WS-205, WS-210, WS-215, WS-220, WS-225, WS-230, WS-235, WS-240, WS-245, WS-250, WS-255, WS-315, WS-320.

WS-100/24V, WS-110/12V (72 cell), WS-110/24V, WS-125/24V, WS-130/24V, WS-140/24V

WSM-XXX (XXX denotes 255W to 300W with 5W of interval)

WSM-XXX (XXX denotes 320W to 360W with 5W of interval)

History of the reports:

Original reports dated 2014-08-21

4786363550-NABL-S1, 4786363550-NABL-S2; 4786363550-NABL-S2-1

Amendment 1 reports dated 2016-07-29

4787358727-NABL-S1-TRF; 4787358727-NABL-S2-TRF1; 4787358727-NABL-S2-TRF2

Amendment 2 reports dated dated 2016-12-08;

4787601497.1.1-NABL-S1-TRF; 4787601497.1.1-NABL-S2-TRF1; 4787601497.1.1-NABL-S2-TRF2

Amendment 3 reports dated 2017-02-01

4787698569-NABL-S1-TRF; 4787698569-NABL-S2-TRF1; 4787698569-NABL-S2-TRF2

Amendment 4 reports dated 2017-03-30

4787848096-NABL-S1-TRF; 4787848096-NABL-S2-TRF1; 4787848096-NABL-S2-TRF2



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Ratings:

Model	Open Circuit Voltage at STC,(V dc)	Rated Voltage at STC,(V dc)	Maximum System Voltage, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)	Maximum Series Fuse, (A)	No.of cells.
WS-3 / 6V	10.20	8.70	600.00	0.34	0.39	3.00	1	18
WS-3 / 12V	21.00	17.00	600.00	0.18	0.19	3.00	1	36
WS-5 / 6V	10.22	8.72	600.00	0.57	0.65	5.00	1	18
WS-5 / 12V	21.02	17.00	600.00	0.29	0.32	5.00	1	36
WS-6 / 12V	21.03	17.01	600.00	0.35	0.38	6.00	1	36
WS-8 / 12V	21.05	17.02	600.00	0.47	0.51	8.00	5	36
WS-10 / 6V	10.27	8.77	600.00	1.14	1.30	10.00	5	18
WS-10 / 12V	21.07	17.03	600.00	0.59	0.63	10.00	5	36
WS-12 / 6V	10.29	8.79	600.00	1.37	1.55	12.00	5	18
WS-12 / 12V	21.09	17.04	600.00	0.70	0.76	12.00	5	36
WS-15 / 6V	10.32	8.82	600.00	1.70	1.94	15.00	5	18
WS-15 / 12V	21.12	17.06	600.00	0.88	0.95	15.00	5	36
WS-18 / 6V	10.35	8.85	600.00	2.03	2.32	18.00	5	18
WS-18 / 12V	21.15	17.07	600.00	1.05	1.13	18.00	5	36
WS-20 / 6V	10.37	8.87	600.00	2.25	2.57	20.00	10	18
WS-20 / 12V	21.17	17.08	600.00	1.17	1.26	20.00	10	36
WS-24 / 12V	21.21	17.10	600.00	1.40	1.51	24.00	10	36
WS-24 / 24V	43.50	35.20	600.00	0.68	0.74	24.00	10	72
WS-25 / 12V	21.22	17.11	600.00	1.46	1.57	25.00	10	36
WS-30 / 12V	21.27	17.13	600.00	1.75	1.88	30.00	10	36
WS-35 / 12V	21.32	17.16	600.00	2.04	2.19	35.00	10	36
WS-37 / 12V	21.34	17.17	600.00	2.16	2.31	37.00	10	36
WS-40 / 12V	21.37	17.18	1000.00	2.33	2.50	40.00	10	36
WS-45 / 12V	21.42	17.19	1000.00	2.62	2.80	45.00	10	36
WS-50 / 12V	21.47	17.21	1000.00	2.91	3.11	50.00	10	36
WS-50 / 24V	43.60	35.15	1000.00	1.42	1.53	50.00	10	72
WS-51 / 12V	21.48	17.22	1000.00	2.96	3.17	51.00	10	36
WS-52 / 12V	21.49	17.22	1000.00	3.02	3.23	52.00	10	36
WS-53 / 12V	21.50	17.23	1000.00	3.08	3.29	53.00	10	36
WS-54 / 12V	21.51	17.23	1000.00	3.13	3.35	54.00	10	36



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WS-55 / 12V	21.52	17.24	1000.00	3.19	3.41	55.00	10	36
WS-60 / 12V	21.57	17.26	1000.00	3.48	3.71	60.00	10	36
WS-60 / 24V	43.70	35.25	1000.00	1.70	1.83	60.00	15	72
WS-65 / 12V	21.62	17.29	1000.00	3.76	4.01	65.00	15	36
WS-70 / 12V	21.67	17.31	1000.00	4.04	4.31	70.00	15	36
WS-74 / 12V	21.71	17.33	1000.00	4.27	4.54	74.00	15	36
WS-74 / 24V	43.80	35.35	1000.00	2.09	2.25	74.00	15	72
WS-75 / 12V	21.72	17.34	1000.00	4.33	4.60	75.00	15	36
WS-75 / 24V	43.85	35.40	1000.00	2.12	2.28	75.00	15	72
WS-80 / 12V	21.77	17.36	1000.00	4.61	4.90	80.00	15	36
WS-80 / 24V	43.90	35.45	1000.00	2.26	2.43	80.00	10	72
WS-85 / 12V	21.82	17.39	1000.00	4.89	5.19	85.00	10	36
WS-90 / 12V	21.87	17.41	1000.00	5.17	5.49	90.00	10	36
WS-90 / 24V	43.95	35.50	1000.00	2.54	2.73	90.00	10	72
WS-95 / 12V	21.92	17.44	1000.00	5.45	5.78	95.00	10	36
WS-100 / 12V	22.2	17.46	1000.00	5.73	6.07	100.00	15	36
WS-100 / 24V	44.00	35.60	1000.00	2.81	3.03	100.00	15	72
WS-105 / 12V	22.02	17.49	1000.00	6.01	6.36	105.00	15	36
WS-110 / 12V	22.07	17.51	1000.00	6.28	6.65	110.00	15	36
WS-110 / 24V	44.10	35.70	1000.00	3.08	3.33	110.00	15	72
WS-115 / 12V	22.12	17.54	1000.00	6.56	6.93	115.00	15	36
WS-120 / 12V	22.17	17.56	1000.00	6.83	7.22	120.00	15	36
WS-125 / 12V	22.22	17.59	1000.00	7.11	7.50	125.00	15	36
WS-125 / 24V	44.15	35.80	1000.00	3.49	3.78	125.00	15	72
WS-130 / 12V	22.27	17.61	1000.00	7.38	7.78	130.00	15	36
WS-130 / 24V	44.10	35.90	1000.00	3.62	3.93	130.00	15	72
WS-135 / 12V	22.32	17.64	1000.00	7.66	8.06	135.00	15	36
WS-140 / 12V	22.37	17.66	1000.00	7.93	8.34	140.00	15	36
WS-140	32.50	26.50	1000.00	5.28	5.74	140.00	15	54
WS-140 / 24V	44.20	35.70	1000.00	3.92	4.22	140.00	15	72
WS-145 / 12V	22.42	17.69	1000.00	8.20	8.62	145.00	15	36
WS-150 / 12V	22.47	17.72	1000.00	8.47	8.90	150.00	15	36
WS-150 / 24V	44.30	36.10	1000.00	4.16	4.51	150.00	15	72
WS-155 / 24V	44.35	36.15	1000.00	4.29	4.66	155.00	15	72
WS-160 / 24V	44.40	36.20	1000.00	4.42	4.80	160.00	15	72
WS-165 / 24V	44.45	36.25	1000.00	4.55	4.95	165.00	15	72
WS-170 / 24V	44.50	36.30	1000.00	4.68	5.09	170.00	15	72



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WS-175	32.50	26.50	1000.00	6.60	7.18	175.00	15	54
WS-180	32.60	26.60	1000.00	6.77	7.36	180.00	15	54
WS-185	32.70	26.70	1000.00	6.93	7.54	185.00	15	54
WS-190	32.80	26.80	1000.00	7.09	7.72	190.00	15	54
WS-190 / 24V	44.70	36.20	1000.00	5.25	5.67	190.00	15	72
WS-195	32.90	26.90	1000.00	7.25	7.90	195.00	15	54
WS-200	32.00	26.00	1000.00	7.41	8.08	200.00	15	54
WS-200 / 12V	22.97	17.97	1000.00	5.51	5.95	200.00	15	72
WS-200 / 24V	44.80	36.30	1000.00	7.70	8.33	200.00	15	72
WS-205	33.10	27.10	1000.00	7.56	8.26	205.00	15	54
WS-210	36.40	30.00	1000.00	7.00	7.69	210.00	15	60
WS-210 / 12V	23.07	18.02	1000.00	5.97	6.42	210.00	15	72
WS-210 / 24V	43.60	35.15	1000.00	7.25	7.78	210.00	15	72
WS-215	36.50	30.10	1000.00	7.14	7.85	215.00	15	60
WS-220	36.60	30.20	1000.00	7.28	8.01	220.00	15	60
WS-220 / 12V	23.17	18.07	1000.00	6.24	6.71	220.00	15	72
WS-220 / 24V	43.70	35.25	1000.00	7.60	8.14	220.00	15	72
WS-225	36.70	30.30	1000.00	7.43	8.17	225.00	15	60
WS-230	36.80	30.40	1000.00	7.57	8.33	230.00	15	60
WS-230 / 12V	23.27	18.12	1000.00	6.51	7.00	230.00	15	72
WS-230 / 24V	43.80	35.35	1000.00	7.94	8.51	230.00	15	72
WS-235	36.90	30.50	1000.00	7.70	8.49	235.00	15	60
WS-240	37.00	30.60	1000.00	7.84	8.65	240.00	15	60
WS-240 / 12V	23.37	18.17	1000.00	6.77	7.29	240.00	15	72
WS-240 / 24V	43.90	35.45	1000.00	8.28	8.88	240.00	15	72
WS-245	37.10	30.70	1000.00	7.98	8.81	245.00	15	60
WS-250	37.20	30.80	1000.00	8.12	8.96	250.00	15	60
WS-250 / 12V	23.47	18.22	1000.00	7.03	7.58	250.00	15	72
WS-250 / 24V	44.00	35.55	1000.00	8.63	9.25	250.00	15	72
WS-255	37.30	30.90	1000.00	8.25	9.12	255.00	15	60
WS-255 / 24V	44.10	35.60	1000.00	7.16	7.71	255.00	15	72
WS-260 / 24V	44.20	35.70	1000.00	7.28	7.84	260.00	15	72
WS-265 / 24V	44.30	35.80	1000.00	7.40	7.98	265.00	15	72
WS-270 / 24V	44.40	35.90	1000.00	7.52	8.11	270.00	15	72
WS-275 / 24V	44.50	36.00	1000.00	7.64	8.24	275.00	15	72
WS-280 / 24V	44.60	36.10	1000.00	7.76	8.37	280.00	15	72
WS-285 / 24V	44.70	36.20	1000.00	7.87	8.50	285.00	15	72



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WS-290 / 24V	44.80	36.30	1000.00	7.99	8.63	290.00	15	72
WS-295 / 24V	44.90	36.40	1000.00	8.10	8.76	295.00	15	72
WS-300 / 24V	45.00	36.50	1000.00	8.22	8.89	300.00	15	72
WS-305 / 24V	45.10	36.60	1000.00	8.33	9.02	305.00	15	72
WS-310 / 24V	45.20	36.70	1000.00	8.45	9.14	310.00	15	72
WS-315	45.25	36.75	1000.00	8.58	9.29	315.00	15	72
WS-320	45.3	36.8	1000.00	8.7	9.42	320.00	15	72
WS-40 / 12V	21.37	17.18	1000.00	2.33	2.5	40.00	10	72
WS-45 / 12V	21.42	17.19	1000.00	2.62	2.8	45.00	10	72
WS-50 / 12V	21.47	17.21	1000.00	2.91	3.11	50.00	10	72
WS-51 / 12V	21.48	17.22	1000.00	2.96	3.17	51.00	10	72
WS-52 / 12V	21.49	17.22	1000.00	3.02	3.23	52.00	10	72
WS-53 / 12V	21.5	17.23	1000.00	3.08	3.29	53.00	10	72
WS-54 / 12V	21.51	17.23	1000.00	3.13	3.35	54.00	10	72
WS-55 / 12V	21.52	17.24	1000.00	3.19	3.41	55.00	10	72
WS-60 / 12V	21.57	17.26	1000.00	3.48	3.71	60.00	10	72
WS-65 / 12V	21.62	17.29	1000.00	3.76	4.01	65.00	15	72
WS-70 / 12V	21.67	17.31	1000.00	4.04	4.31	70.00	15	72
WS-74 / 12V	21.71	17.33	1000.00	4.27	4.54	74.00	15	72
WS-75 / 12V	21.72	17.34	1000.00	4.33	4.6	75.00	15	72
WS-80 / 12V	21.77	17.36	1000.00	4.61	4.9	80.00	15	72
WS-85 / 12V	21.82	17.39	1000.00	4.89	5.19	85.00	10	72
WS-90 / 12V	21.87	17.41	1000.00	5.17	5.49	90.00	10	72
WS-95 / 12V	21.92	17.44	1000.00	5.45	5.78	95.00	10	72
WS-100 / 12V	22.2	17.46	1000.00	5.73	6.07	100.00	15	72
WS-105 / 12V	22.02	17.49	1000.00	6.01	6.36	105.00	15	72
WS-110 / 12V	22.07	17.51	1000.00	6.28	6.65	110.00	15	72
WS-115 / 12V	22.12	17.54	1000.00	6.56	6.93	115.00	15	72
WS-120 / 12V	22.17	17.56	1000.00	6.83	7.22	120.00	15	72
WSM-255	36.50	30.00	1000.00	8.50	9.00	255	15	60
WSM-260	36.60	30.25	1000.00	8.60	9.15	260	15	60
WSM-265	36.70	30.50	1000.00	8.70	9.30	265	15	60
WSM-270	37.20	30.90	1000.00	8.75	9.40	270	15	60
WSM-275	37.40	31.10	1000.00	8.85	9.55	275	15	60
WSM-280	37.60	31.40	1000.00	8.93	9.65	280	15	60
WSM-285	37.90	31.50	1000.00	9.05	9.75	285	15	60
WSM-290	38.20	31.60	1000.00	9.20	9.80	290	15	60
WSM-295	38.50	31.80	1000.00	9.28	9.85	295	15	60



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WSM-300	38.80	32.00	1000.00	9.38	9.95	300	15	60
WSM-320	45.20	36.20	1000.00	8.85	9.20	320	15	72
WSM-325	45.40	36.40	1000.00	8.94	9.30	325	15	72
WSM-330	45.60	36.55	1000.00	9.03	9.40	330	15	72
WSM-335	45.80	36.70	1000.00	9.13	9.50	335	15	72
WSM-340	46.00	36.90	1000.00	9.22	9.60	340	15	72
WSM-345	46.20	37.20	1000.00	9.28	9.70	345	15	72
WSM-350	46.40	37.50	1000.00	9.35	9.80	350	15	72
WSM-355	46.60	37.65	1000.00	9.43	9.85	355	15	72
WSM-360	46.80	37.90	1000.00	9.50	9.90	360	15	72
WS-3 / 6V	10.20	8.70	600.00	0.34	0.39	3.00	1	18
WS-3 / 12V	21.00	17.00	600.00	0.18	0.19	3.00	1	36
WS-5 / 6V	10.22	8.72	600.00	0.57	0.65	5.00	1	18
WS-5 / 12V	21.02	17.00	600.00	0.29	0.32	5.00	1	36
WS-6 / 12V	21.03	17.01	600.00	0.35	0.38	6.00	1	36
WS-8 / 12V	21.05	17.02	600.00	0.47	0.51	8.00	5	36
WS-10 / 6V	10.27	8.77	600.00	1.14	1.30	10.00	5	18
WS-10 / 12V	21.07	17.03	600.00	0.59	0.63	10.00	5	36
WS-12 / 6V	10.29	8.79	600.00	1.37	1.55	12.00	5	18
WS-12 / 12V	21.09	17.04	600.00	0.70	0.76	12.00	5	36
WS-15 / 6V	10.32	8.82	600.00	1.70	1.94	15.00	5	18
WS-15 / 12V	21.12	17.06	600.00	0.88	0.95	15.00	5	36
WS-18 / 6V	10.35	8.85	600.00	2.03	2.32	18.00	5	18
WS-18 / 12V	21.15	17.07	600.00	1.05	1.13	18.00	5	36
WS-20 / 6V	10.37	8.87	600.00	2.25	2.57	20.00	10	18
WS-20 / 12V	21.17	17.08	600.00	1.17	1.26	20.00	10	36
WS-24 / 12V	21.21	17.10	600.00	1.40	1.51	24.00	10	36
WS-24 / 24V	43.50	35.20	600.00	0.68	0.74	24.00	10	72
WS-25 / 12V	21.22	17.11	600.00	1.46	1.57	25.00	10	36
WS-30 / 12V	21.27	17.13	600.00	1.75	1.88	30.00	10	36
WS-35 / 12V	21.32	17.16	600.00	2.04	2.19	35.00	10	36
WS-37 / 12V	21.34	17.17	600.00	2.16	2.31	37.00	10	36
WS-40 / 12V	21.37	17.18	1000.00	2.33	2.50	40.00	10	36
WS-45 / 12V	21.42	17.19	1000.00	2.62	2.80	45.00	10	36
WS-50 / 12V	21.47	17.21	1000.00	2.91	3.11	50.00	10	36
WS-50 / 24V	43.60	35.15	1000.00	1.42	1.53	50.00	10	72
WS-51 / 12V	21.48	17.22	1000.00	2.96	3.17	51.00	10	36
WS-52 / 12V	21.49	17.22	1000.00	3.02	3.23	52.00	10	36



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WS-53 / 12V	21.50	17.23	1000.00	3.08	3.29	53.00	10	36
WS-54 / 12V	21.51	17.23	1000.00	3.13	3.35	54.00	10	36
WS-55 / 12V	21.52	17.24	1000.00	3.19	3.41	55.00	10	36
WS-60 / 12V	21.57	17.26	1000.00	3.48	3.71	60.00	10	36
WS-60 / 24V	43.70	35.25	1000.00	1.70	1.83	60.00	15	72
WS-65 / 12V	21.62	17.29	1000.00	3.76	4.01	65.00	15	36
WS-70 / 12V	21.67	17.31	1000.00	4.04	4.31	70.00	15	36
WS-74 / 12V	21.71	17.33	1000.00	4.27	4.54	74.00	15	36
WS-74 / 24V	43.80	35.35	1000.00	2.09	2.25	74.00	15	72
WS-75 / 12V	21.72	17.34	1000.00	4.33	4.60	75.00	15	36
WS-75 / 24V	43.85	35.40	1000.00	2.12	2.28	75.00	15	72
WS-80 / 12V	21.77	17.36	1000.00	4.61	4.90	80.00	15	36
WS-80 / 24V	43.90	35.45	1000.00	2.26	2.43	80.00	10	72
WS-85 / 12V	21.82	17.39	1000.00	4.89	5.19	85.00	10	36
WS-90 / 12V	21.87	17.41	1000.00	5.17	5.49	90.00	10	36
WS-90 / 24V	43.95	35.50	1000.00	2.54	2.73	90.00	10	72
WS-95 / 12V	21.92	17.44	1000.00	5.45	5.78	95.00	10	36
WS-100 / 12V	22.2	17.46	1000.00	5.73	6.07	100.00	15	36
WS-100 / 24V	44.00	35.60	1000.00	2.81	3.03	100.00	15	72
WS-105 / 12V	22.02	17.49	1000.00	6.01	6.36	105.00	15	36
WS-110 / 12V	22.07	17.51	1000.00	6.28	6.65	110.00	15	36
WS-110 / 24V	44.10	35.70	1000.00	3.08	3.33	110.00	15	72
WS-115 / 12V	22.12	17.54	1000.00	6.56	6.93	115.00	15	36
WS-120 / 12V	22.17	17.56	1000.00	6.83	7.22	120.00	15	36
WS-125 / 12V	22.22	17.59	1000.00	7.11	7.50	125.00	15	36
WS-125 / 24V	44.15	35.80	1000.00	3.49	3.78	125.00	15	72
WS-130 / 12V	22.27	17.61	1000.00	7.38	7.78	130.00	15	36
WS-130 / 24V	44.10	35.90	1000.00	3.62	3.93	130.00	15	72
WS-135 / 12V	22.32	17.64	1000.00	7.66	8.06	135.00	15	36
WS-140 / 12V	22.37	17.66	1000.00	7.93	8.34	140.00	15	36
WS-140	32.50	26.50	1000.00	5.28	5.74	140.00	15	54
WS-140 / 24V	44.20	35.70	1000.00	3.92	4.22	140.00	15	72
WS-145 / 12V	22.42	17.69	1000.00	8.20	8.62	145.00	15	36
WS-150 / 12V	22.47	17.72	1000.00	8.47	8.90	150.00	15	36
WS-150 / 24V	44.30	36.10	1000.00	4.16	4.51	150.00	15	72
WS-155 / 24V	44.35	36.15	1000.00	4.29	4.66	155.00	15	72
WS-160 / 24V	44.40	36.20	1000.00	4.42	4.80	160.00	15	72
WS-165 / 24V	44.45	36.25	1000.00	4.55	4.95	165.00	15	72



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WS-170 / 24V	44.50	36.30	1000.00	4.68	5.09	170.00	15	72
WS-175	32.50	26.50	1000.00	6.60	7.18	175.00	15	54
WS-180	32.60	26.60	1000.00	6.77	7.36	180.00	15	54
WS-185	32.70	26.70	1000.00	6.93	7.54	185.00	15	54
WS-190	32.80	26.80	1000.00	7.09	7.72	190.00	15	54
WS-190 / 24V	44.70	36.20	1000.00	5.25	5.67	190.00	15	72
WS-195	32.90	26.90	1000.00	7.25	7.90	195.00	15	54
WS-200	33.00	27.00	1000.00	7.41	8.08	200.00	15	54
WS-200 / 12V	22.97	17.97	1000.00	5.51	5.95	200.00	15	72
WS-200 / 24V	44.80	36.30	1000.00	7.70	8.33	200.00	15	72
WS-205	33.10	27.10	1000.00	7.56	8.26	205.00	15	54
WS-210	36.40	30.00	1000.00	7.00	7.69	210.00	15	60
WS-210 / 12V	23.07	18.02	1000.00	5.97	6.42	210.00	15	72
WS-210 / 24V	43.60	35.15	1000.00	7.25	7.78	210.00	15	72
WS-215	36.50	30.10	1000.00	7.14	7.85	215.00	15	60
WS-220	36.60	30.20	1000.00	7.28	8.01	220.00	15	60
WS-220 / 12V	23.17	18.07	1000.00	6.24	6.71	220.00	15	72
WS-220 / 24V	43.70	35.25	1000.00	7.60	8.14	220.00	15	72
WS-225	36.70	30.30	1000.00	7.43	8.17	225.00	15	60
WS-230	36.80	30.40	1000.00	7.57	8.33	230.00	15	60
WS-230 / 12V	23.27	18.12	1000.00	6.51	7.00	230.00	15	72
WS-230 / 24V	43.80	35.35	1000.00	7.94	8.51	230.00	15	72
WS-235	36.90	30.50	1000.00	7.70	8.49	235.00	15	60
WS-240	37.00	30.60	1000.00	7.84	8.65	240.00	15	60
WS-240 / 12V	23.37	18.17	1000.00	6.77	7.29	240.00	15	72
WS-240 / 24V	43.90	35.45	1000.00	8.28	8.88	240.00	15	72
WS-245	37.10	30.70	1000.00	7.98	8.81	245.00	15	60
WS-250	37.20	30.80	1000.00	8.12	8.96	250.00	15	60
WS-250 / 12V	23.47	18.22	1000.00	7.03	7.58	250.00	15	72
WS-250 / 24V	44.00	35.55	1000.00	8.63	9.25	250.00	15	72
WS-255	37.30	30.90	1000.00	8.25	9.12	255.00	15	60
WS-255 / 24V	44.10	35.60	1000.00	7.16	7.71	255.00	15	72
WS-260 / 24V	44.20	35.70	1000.00	7.28	7.84	260.00	15	72
WS-265 / 24V	44.30	35.80	1000.00	7.40	7.98	265.00	15	72
WS-270 / 24V	44.40	35.90	1000.00	7.52	8.11	270.00	15	72
WS-275 / 24V	44.50	36.00	1000.00	7.64	8.24	275.00	15	72
WS-280 / 24V	44.60	36.10	1000.00	7.76	8.37	280.00	15	72
WS-285 / 24V	44.70	36.20	1000.00	7.87	8.50	285.00	15	72



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WS-290 / 24V	44.80	36.30	1000.00	7.99	8.63	290.00	15	72
WS-295 / 24V	44.90	36.40	1000.00	8.10	8.76	295.00	15	72
WS-300 / 24V	45.00	36.50	1000.00	8.22	8.89	300.00	15	72
WS-305 / 24V	45.10	36.60	1000.00	8.33	9.02	305.00	15	72
WS-310 / 24V	45.20	36.70	1000.00	8.45	9.14	310.00	15	72
WS-315	45.25	36.75	1000.00	8.58	9.29	315.00	15	72
WS-320	45.3	36.8	1000.00	8.7	9.42	320.00	15	72
WS-40 / 12V	21.37	17.18	1000.00	2.33	2.5	40.00	10	72
WS-45 / 12V	21.42	17.19	1000.00	2.62	2.8	45.00	10	72
WS-50 / 12V	21.47	17.21	1000.00	2.91	3.11	50.00	10	72
WS-51 / 12V	21.48	17.22	1000.00	2.96	3.17	51.00	10	72
WS-52 / 12V	21.49	17.22	1000.00	3.02	3.23	52.00	10	72
WS-53 / 12V	21.5	17.23	1000.00	3.08	3.29	53.00	10	72
WS-54 / 12V	21.51	17.23	1000.00	3.13	3.35	54.00	10	72
WS-55 / 12V	21.52	17.24	1000.00	3.19	3.41	55.00	10	72
WS-60 / 12V	21.57	17.26	1000.00	3.48	3.71	60.00	10	72
WS-65 / 12V	21.62	17.29	1000.00	3.76	4.01	65.00	15	72
WS-70 / 12V	21.67	17.31	1000.00	4.04	4.31	70.00	15	72
WS-74 / 12V	21.71	17.33	1000.00	4.27	4.54	74.00	15	72
WS-75 / 12V	21.72	17.34	1000.00	4.33	4.6	75.00	15	72
WS-80 / 12V	21.77	17.36	1000.00	4.61	4.9	80.00	15	72
WS-85 / 12V	21.82	17.39	1000.00	4.89	5.19	85.00	10	72
WS-90 / 12V	21.87	17.41	1000.00	5.17	5.49	90.00	10	72
WS-95 / 12V	21.92	17.44	1000.00	5.45	5.78	95.00	10	72
WS-100 / 12V	22.2	17.46	1000.00	5.73	6.07	100.00	15	72
WS-105 / 12V	22.02	17.49	1000.00	6.01	6.36	105.00	15	72
WS-110 / 12V	22.07	17.51	1000.00	6.28	6.65	110.00	15	72
WS-115 / 12V	22.12	17.54	1000.00	6.56	6.93	115.00	15	72
WS-120 / 12V	22.17	17.56	1000.00	6.83	7.22	120.00	15	72
WSM-255	36.50	30.00	1000.00	8.50	9.00	255	15	60
WSM-260	36.60	30.25	1000.00	8.60	9.15	260	15	60
WSM-265	36.70	30.50	1000.00	8.70	9.30	265	15	60
WSM-270	37.20	30.90	1000.00	8.75	9.40	270	15	60
WSM-275	37.40	31.10	1000.00	8.85	9.55	275	15	60
WSM-280	37.60	31.40	1000.00	8.93	9.65	280	15	60
WSM-285	37.90	31.50	1000.00	9.05	9.75	285	15	60
WSM-290	38.20	31.60	1000.00	9.20	9.80	290	15	60
WSM-295	38.50	31.80	1000.00	9.28	9.85	295	15	60



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WSM-300	38.80	32.00	1000.00	9.38	9.95	300	15	60
WSM-320	45.20	36.20	1000.00	8.85	9.20	320	15	72
WSM-325	45.40	36.40	1000.00	8.94	9.30	325	15	72
WSM-330	45.60	36.55	1000.00	9.03	9.40	330	15	72
WSM-335	45.80	36.70	1000.00	9.13	9.50	335	15	72
WSM-340	46.00	36.90	1000.00	9.22	9.60	340	15	72
WSM-345	46.20	37.20	1000.00	9.28	9.70	345	15	72
WSM-350	46.40	37.50	1000.00	9.35	9.80	350	15	72
WSM-355	46.60	37.65	1000.00	9.43	9.85	355	15	72
WSM-360	46.80	37.90	1000.00	9.50	9.90	360	15	72
WS-3 / 6V	10.20	8.70	600.00	0.34	0.39	3.00	1	18
WS-3 / 12V	21.00	17.00	600.00	0.18	0.19	3.00	1	36
WS-5 / 6V	10.22	8.72	600.00	0.57	0.65	5.00	1	18
WS-5 / 12V	21.02	17.00	600.00	0.29	0.32	5.00	1	36
WS-6 / 12V	21.03	17.01	600.00	0.35	0.38	6.00	1	36
WS-8 / 12V	21.05	17.02	600.00	0.47	0.51	8.00	5	36
WS-10 / 6V	10.27	8.77	600.00	1.14	1.30	10.00	5	18
WS-10 / 12V	21.07	17.03	600.00	0.59	0.63	10.00	5	36
WS-12 / 6V	10.29	8.79	600.00	1.37	1.55	12.00	5	18
WS-12 / 12V	21.09	17.04	600.00	0.70	0.76	12.00	5	36
WS-15 / 6V	10.32	8.82	600.00	1.70	1.94	15.00	5	18
WS-15 / 12V	21.12	17.06	600.00	0.88	0.95	15.00	5	36
WS-18 / 6V	10.35	8.85	600.00	2.03	2.32	18.00	5	18
WS-18 / 12V	21.15	17.07	600.00	1.05	1.13	18.00	5	36
WS-20 / 6V	10.37	8.87	600.00	2.25	2.57	20.00	10	18
WS-20 / 12V	21.17	17.08	600.00	1.17	1.26	20.00	10	36
WS-24 / 12V	21.21	17.10	600.00	1.40	1.51	24.00	10	36
WS-24 / 24V	43.50	35.20	600.00	0.68	0.74	24.00	10	72
WS-25 / 12V	21.22	17.11	600.00	1.46	1.57	25.00	10	36
WS-30 / 12V	21.27	17.13	600.00	1.75	1.88	30.00	10	36
WS-35 / 12V	21.32	17.16	600.00	2.04	2.19	35.00	10	36
WS-37 / 12V	21.34	17.17	600.00	2.16	2.31	37.00	10	36
WS-40 / 12V	21.37	17.18	1000.00	2.33	2.50	40.00	10	36
WS-45 / 12V	21.42	17.19	1000.00	2.62	2.80	45.00	10	36
WS-50 / 12V	21.47	17.21	1000.00	2.91	3.11	50.00	10	36
WS-50 / 24V	43.60	35.15	1000.00	1.42	1.53	50.00	10	72
WS-51 / 12V	21.48	17.22	1000.00	2.96	3.17	51.00	10	36
WS-52 / 12V	21.49	17.22	1000.00	3.02	3.23	52.00	10	36



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WS-53 / 12V	21.50	17.23	1000.00	3.08	3.29	53.00	10	36
WS-54 / 12V	21.51	17.23	1000.00	3.13	3.35	54.00	10	36
WS-55 / 12V	21.52	17.24	1000.00	3.19	3.41	55.00	10	36
WS-60 / 12V	21.57	17.26	1000.00	3.48	3.71	60.00	10	36
WS-60 / 24V	43.70	35.25	1000.00	1.70	1.83	60.00	15	72
WS-65 / 12V	21.62	17.29	1000.00	3.76	4.01	65.00	15	36
WS-70 / 12V	21.67	17.31	1000.00	4.04	4.31	70.00	15	36
WS-74 / 12V	21.71	17.33	1000.00	4.27	4.54	74.00	15	36
WS-74 / 24V	43.80	35.35	1000.00	2.09	2.25	74.00	15	72
WS-75 / 12V	21.72	17.34	1000.00	4.33	4.60	75.00	15	36
WS-75 / 24V	43.85	35.40	1000.00	2.12	2.28	75.00	15	72
WS-80 / 12V	21.77	17.36	1000.00	4.61	4.90	80.00	15	36
WS-80 / 24V	43.90	35.45	1000.00	2.26	2.43	80.00	10	72
WS-85 / 12V	21.82	17.39	1000.00	4.89	5.19	85.00	10	36
WS-90 / 12V	21.87	17.41	1000.00	5.17	5.49	90.00	10	36
WS-90 / 24V	43.95	35.50	1000.00	2.54	2.73	90.00	10	72
WS-95 / 12V	21.92	17.44	1000.00	5.45	5.78	95.00	10	36
WS-100 / 12V	22.2	17.46	1000.00	5.73	6.07	100.00	15	36
WS-100 / 24V	44.00	35.60	1000.00	2.81	3.03	100.00	15	72
WS-105 / 12V	22.02	17.49	1000.00	6.01	6.36	105.00	15	36
WS-110 / 12V	22.07	17.51	1000.00	6.28	6.65	110.00	15	36
WS-110 / 24V	44.10	35.70	1000.00	3.08	3.33	110.00	15	72
WS-115 / 12V	22.12	17.54	1000.00	6.56	6.93	115.00	15	36
WS-120 / 12V	22.17	17.56	1000.00	6.83	7.22	120.00	15	36
WS-125 / 12V	22.22	17.59	1000.00	7.11	7.50	125.00	15	36
WS-125 / 24V	44.15	35.80	1000.00	3.49	3.78	125.00	15	72
WS-130 / 12V	22.27	17.61	1000.00	7.38	7.78	130.00	15	36
WS-130 / 24V	44.10	35.90	1000.00	3.62	3.93	130.00	15	72
WS-135 / 12V	22.32	17.64	1000.00	7.66	8.06	135.00	15	36
WS-140 / 12V	22.37	17.66	1000.00	7.93	8.34	140.00	15	36
WS-140	32.50	26.50	1000.00	5.28	5.74	140.00	15	54
WS-140 / 24V	44.20	35.70	1000.00	3.92	4.22	140.00	15	72
WS-145 / 12V	22.42	17.69	1000.00	8.20	8.62	145.00	15	36
WS-150 / 12V	22.47	17.72	1000.00	8.47	8.90	150.00	15	36
WS-150 / 24V	44.30	36.10	1000.00	4.16	4.51	150.00	15	72
WS-155 / 24V	44.35	36.15	1000.00	4.29	4.66	155.00	15	72
WS-160 / 24V	44.40	36.20	1000.00	4.42	4.80	160.00	15	72
WS-165 / 24V	44.45	36.25	1000.00	4.55	4.95	165.00	15	72



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WS-170 / 24V	44.50	36.30	1000.00	4.68	5.09	170.00	15	72
WS-175	32.50	26.50	1000.00	6.60	7.18	175.00	15	54
WS-180	32.60	26.60	1000.00	6.77	7.36	180.00	15	54
WS-185	32.70	26.70	1000.00	6.93	7.54	185.00	15	54
WS-190	32.80	26.80	1000.00	7.09	7.72	190.00	15	54
WS-190 / 24V	44.70	36.20	1000.00	5.25	5.67	190.00	15	72
WS-195	32.90	26.90	1000.00	7.25	7.90	195.00	15	54
WS-200	33.00	27.00	1000.00	7.41	8.08	200.00	15	54
WS-200 / 12V	22.97	17.97	1000.00	5.51	5.95	200.00	15	72
WS-200 / 24V	44.80	36.30	1000.00	7.70	8.33	200.00	15	72
WS-205	33.10	27.10	1000.00	7.56	8.26	205.00	15	54
WS-210	36.40	30.00	1000.00	7.00	7.69	210.00	15	60
WS-210 / 12V	23.07	18.02	1000.00	5.97	6.42	210.00	15	72
WS-210 / 24V	43.60	35.15	1000.00	7.25	7.78	210.00	15	72
WS-215	36.50	30.10	1000.00	7.14	7.85	215.00	15	60
WS-220	36.60	30.20	1000.00	7.28	8.01	220.00	15	60
WS-220 / 12V	23.17	18.07	1000.00	6.24	6.71	220.00	15	72
WS-220 / 24V	43.70	35.25	1000.00	7.60	8.14	220.00	15	72
WS-225	36.70	30.30	1000.00	7.43	8.17	225.00	15	60
WS-230	36.80	30.40	1000.00	7.57	8.33	230.00	15	60
WS-230 / 12V	23.27	18.12	1000.00	6.51	7.00	230.00	15	72
WS-230 / 24V	43.80	35.35	1000.00	7.94	8.51	230.00	15	72
WS-235	36.90	30.50	1000.00	7.70	8.49	235.00	15	60
WS-240	37.00	30.60	1000.00	7.84	8.65	240.00	15	60
WS-240 / 12V	23.37	18.17	1000.00	6.77	7.29	240.00	15	72
WS-240 / 24V	43.90	35.45	1000.00	8.28	8.88	240.00	15	72
WS-245	37.10	30.70	1000.00	7.98	8.81	245.00	15	60
WS-250	37.20	30.80	1000.00	8.12	8.96	250.00	15	60
WS-250 / 12V	23.47	18.22	1000.00	7.03	7.58	250.00	15	72
WS-250 / 24V	44.00	35.55	1000.00	8.63	9.25	250.00	15	72
WS-255	37.30	30.90	1000.00	8.25	9.12	255.00	15	60
WS-255 / 24V	44.10	35.60	1000.00	7.16	7.71	255.00	15	72
WS-260 / 24V	44.20	35.70	1000.00	7.28	7.84	260.00	15	72
WSM-255	36.50	30.00	1000.00	8.50	9.00	255	15	60
WSM-260	36.60	30.25	1000.00	8.60	9.15	260	15	60
WSM-265	36.70	30.50	1000.00	8.70	9.30	265	15	60
WSM-270	37.20	30.90	1000.00	8.75	9.40	270	15	60
WSM-275	37.40	31.10	1000.00	8.85	9.55	275	15	60



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Ratings (Continued)

WSM-280	37.60	31.40	1000.00	8.93	9.65	280	15	60
WSM-285	37.90	31.50	1000.00	9.05	9.75	285	15	60
WSM-290	38.20	31.60	1000.00	9.20	9.80	290	15	60
WSM-295	38.50	31.80	1000.00	9.28	9.85	295	15	60
WSM-300	38.80	32.00	1000.00	9.38	9.95	300	15	60
WSM-320	45.20	36.20	1000.00	8.85	9.20	320	15	72
WSM-325	45.40	36.40	1000.00	8.94	9.30	325	15	72
WSM-330	45.60	36.55	1000.00	9.03	9.40	330	15	72
WSM-335	45.80	36.70	1000.00	9.13	9.50	335	15	72
WSM-340	46.00	36.90	1000.00	9.22	9.60	340	15	72
WSM-345	46.20	37.20	1000.00	9.28	9.70	345	15	72
WSM-350	46.40	37.50	1000.00	9.35	9.80	350	15	72
WSM-355	46.60	37.65	1000.00	9.43	9.85	355	15	72
WSM-360	46.80	37.90	1000.00	9.50	9.90	360	15	72

