

Neutral Earthing Resistors Some References

<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
<i>AmpControl</i>	O NE 01-11-004	1	0,38	200	1,9	-	23				<i>Goonyella</i>
<i>ABB Alstom Power</i>	O NE 00-05-001	1	0,4	1230	0,086	2	00				<i>Rades (Tunisia)</i>
<i>Alstom Power</i>	O NE 03-07-010	1	0,4	1230	0,086	2	00				<i>Rades (Tunisia)</i>
<i>PowerCap Electric</i>	O NE 01-11-003	2	0,5	20	14,4	-	23				<i>Siemens B.T.</i>
<i>Alstom Massy</i>	O NE 03-07-009	1	2,3	5	270	1	54				<i>Beni Harun</i>
<i>Wärsilä</i>	O NE 03-07-016	1	3,3	5,5	346	-	23				<i>Finland</i>
<i>PowerCap Electric</i>	O NE 01-09-001	1	3,3	100	19	10	23	✓	✓		<i>Putra Jaya Precint (2)</i>
<i>PowerCap Electric</i>	O NE 00-10-008	1	3,3	100	19	30	54				<i>Samsung Negeri Sembilan</i>
<i>ABB Industry Pty</i>	O NE 03-08-007	1	3,3	250	7,6	10	54		✓		<i>ISN Phase II</i>
<i>AmpControl</i>	O NE 03-07-014	2	3,3	250	7,6	15	00				<i>Telfer Power Station</i>
<i>AmpControl</i>	O NE 02-12-004	1	3,3	250	7,6	30	00				<i>Australia</i>
<i>S.E.G.</i>	O NE 03-04-004	1	3,3	318	6	5	54				<i>Germany</i>
<i>Schneider Electric</i>	O NE 00-08-003	2	3,3	400	4,8	10	54				<i>Kerteh LDPE (Malaysia)</i>
<i>AmpControl</i>	O NE 03-06-005	1	3,3	400	4,7	10	00				<i>Australia</i>
<i>PowerCap Electric</i>	O NE 04-10-007	1	3,3	400	4,8	10	00				<i>Putrajaya (Malaysia)</i>
<i>AmpControl</i>	O NE 04-02-014	1	3,3	400	4,7	15	00				<i>Australia</i>
<i>AmpControl</i>	O NE 02-06-007	2	3,3	500	4	10	00				<i>Australia</i>
<i>AmpControl</i>	O NE 04-01-005	2	3,45	500	4	10	00				<i>Tomago (Australia)</i>
<i>Alstom Massy</i>	O NE 04-01-003	2	3,6	5	160	10	32				<i>GDF Roussine / Lanouvelotte - France</i>
<i>Alstom - Power Conversion</i>	O NE 04-03-007	1	3,6	5	355	10	31				<i>Langyasham</i>
<i>Alstom - Power Conversion</i>	O NE 04-03-013	4	3,6	5	230	10	54				<i>Cepsa</i>
<i>Alstom - Power Conversion</i>	O NE 04-04-005	4	3,6	5	362	10	54				<i>Adco - Al Dabbiya</i>
<i>AmpControl</i>	O NE 02-09-002	1	3,6	45	47	10	00				<i>Gladstone Port Authority</i>
<i>AmpControl</i>	O NE 02-09-007	1	3,6	45	47	10	00				<i>Australia</i>
<i>Alstom - Power Conversion</i>	O NE 04-10-009	1	4	5	460	10	23				<i>Baishan Pumped Storage (Korea)</i>
<i>Alstom Massy</i>	O NE 03-03-008	2	4,16	5	473	2	23				<i>France</i>
<i>Wartsila</i>	O NE 01-04-009	3	4,16	15	160	10	23	✓	✓		<i>Spain</i>
<i>Bevro Sales</i>	O NE 01-08-002	1	4,16	25	166	60	23				<i>Manitoba Hydro (Canada)</i>

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<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
<i>Al Toukhi Company</i>	O NE 00-08-002	2	4,16	100	24	10	23				<i>Tabarjal PP Extension (Saudi Arabia)</i>
<i>Enertelindo</i>	O NE 04-03-005	4	4,16	100	24	10	54				<i>Betara Complex</i>
<i>Arabian BemCo Contracting</i>	O NE 04-03-001	8	4,16	200	12	10	23				<i>PP9 Block E</i>
<i>Arabian BemCo Contracting</i>	O NE 03-11-011	3	4,16	225	10,7	10	54				<i>Tabuk II - Units 7 & 8 (Saudi Arabia)</i>
<i>Arabian BemCo Contracting</i>	O NE 04-08-004	2	4,16	300	8	10	54				<i>RiyadhPP7 Extension III (Saudi Arabia)</i>
<i>Koncar Power Transformers</i>	O NE 00-12-006	4	4,16	400	6,15	10	54				<i>Monterey III (Ireland)</i>
<i>Alstom Petit-Quevilly</i>	O NE 03-04-008	1	4,16	400	6	10	54				<i>Celsa</i>
<i>Enertelindo</i>	O NE 04-05-001	1	4,16	800	3	10	23				<i>Indonesia</i>
<i>Alstom - Power Conversion</i>	O NE 04-02-009	1	4,33	5	500	10	54				<i>Tongbai</i>
<i>ABB Contracting</i>	O NE 00-11-001	2	4,8	200	14	10	13	✓	✓		<i>TetraPak Factory (Saudi Arabia)</i>
<i>PowerCap Electric</i>	O NE 03-05-007	1	5	2300	1,2	30	23				<i>Mega Steel</i>
<i>PowerCap Electric</i>	O NE 03-11-006	2	6	300	11,5	30	23				<i>Kentz-Petronas Methanol</i>
<i>AmpControl</i>	O NE 03-12-003	4	6,3	350	10,4	10	54				<i>Sakhalin (Russia)</i>
<i>Enertelindo</i>	O NE 04-09-002	6	6,3	400	9	10	23				<i>Tuban Aromatic Plant (Indonesia)</i>
<i>Wartsila</i>	O NE 04-02-004	1	6,6	5	762	10	23	✓	✓		<i>SPCC Jazan</i>
<i>Trexco</i>	O NE 04-06-005	2	6,6	5	762	-	00				<i>France</i>
<i>ABB Near East Trading</i>	O NE 02-03-003	4	6,6	100	38	10	54	✓	✓		<i>Jordan</i>
<i>ABB Contracting</i>	O NE 02-12-002	1	6,6	175	22	10	23	✓			<i>Waraq PM II</i>
<i>PowerCap Electric</i>	O NE 02-04-001	1	6,6	200	19	10	23	✓	✓		<i>Perlis Power Plant</i>
<i>AmpControl</i>	O NE 02-12-004	1	6,6	250	15	30	00				<i>Australia</i>
<i>ABB Contracting</i>	O NE 02-12-002	1	6,6	300	12,7	10	23	✓			<i>Waraq PM II</i>
<i>PowerCap Electric</i>	O NE 01-08-003	1	6,6	300	12,7	30	00	✓	✓		<i>Mox Melacca (Malaysia)</i>
<i>Koncar Power Transformers</i>	O NE 00-10-002	1	6,6	400	9,5	10	54				<i>USA</i>
<i>AmpControl</i>	O NE 03-11-007	1	6,6	400	9,5	10	00				<i>Sheddem Udhe (Australia)</i>
<i>PowerCap Electric</i>	O NE 01-03-003	1	6,6	475	8	10	23				<i>NBCT, PENANG</i>
<i>AmpControl</i>	O NE 02-02-004	1	6,6	500	7,6	10	23				<i>Woodside</i>
<i>AmpControl</i>	O NE 02-02-004	1	6,6	500	7,6	10	00				<i>Woodside</i>
<i>AmpControl</i>	O NE 03-10-004	1	6,6	500	7,6	10	00				<i>Australia</i>

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<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
<i>Al Hassan Company</i>	O NE 03-05-002	2	6,6	700	5,4	10	55				<i>SNGP</i>
<i>AmpControl</i>	O NE 01-06-002	2	6,6	1000	4	3	00				<i>Australia</i>
<i>Wartsila</i>	O NE 01-06-004	1	6,9	15	265	10	23	✓			<i>Thailand</i>
<i>Enertelindo</i>	O NE 04-01-002	1	6,9	100	40	10	54	✓			<i>Indonesia</i>
<i>Koncar Power Transformers</i>	O NE 04-01-004	2	6,9	400	10	5	54				<i>Kirkuk (Iraq)</i>
<i>Koncar Power Transformers</i>	O NE 01-03-006	2	6,9	500	8	10	23				<i>Ireland</i>
<i>Alstom Massy</i>	O NE 04-01-003	2	7,2	5	300	10	32				<i>GDF Roussine / Lanouvelotte - France</i>
<i>Alstom - Power Conversion</i>	O NE 04-04-005	2	7,2	5	725	10	54				<i>Adco Bu-Hasa</i>
<i>Alstom - Power Conversion</i>	O NE 04-06-007	2	7,2	5	300	10	23				<i>Chemery (France)</i>
<i>ABB</i>	O NE 04-05-008	2	7,2	400	10,4	10	54				<i>USA</i>
<i>S.E.G.</i>	O NE 01-05-002	2	10,4	250	24	10	23				<i>U.S.A.</i>
<i>Etra 33</i>	O NE 00-10-001	4	10,4	300	20	5	23				<i>Slovenia</i>
<i>Etra 33</i>	O NE 03-03-007	1	10,4	300	20	5	23	✓			<i>Slovenia</i>
<i>AmpControl</i>	O NE 03-12-003	15	10,5	350	17,3	10	54				<i>Sakhalin (Russia)</i>
<i>Wartsila</i>	O NE 04-02-005	6	11	5	1270	10	23	✓	✓		<i>Antam PP3</i>
<i>AmpControl</i>	O NE 01-12-006	1	11	5	1270	-	23				<i>Australia</i>
<i>S.E.G.</i>	O NE 01-11-001	1	11	10	635	10	23				<i>Germany</i>
<i>AmpControl</i>	O NE 03-03-001	1	11	10	635	10	00				<i>Telfer Power Station Interconnect Stage 1</i>
<i>AmpControl</i>	O NE 03-10-009	1	11	20	318	-	23	✓			<i>Raleigh Underground</i>
<i>AmpControl</i>	O NE 04-10-008	1	11	20	318	-	00				<i>Australia</i>
<i>AmpControl</i>	O NE 01-03-004	1	11	25	254	-	00				<i>Australia</i>
<i>S.E.G.</i>	O NE 03-10-010	1	11	35	182	10	54				<i>Germany</i>
<i>S.E.G.</i>	O NE 02-07-001	1	11	50	127	10	23				<i>Qasr al Alam</i>
<i>AmpControl</i>	O NE 03-03-001	1	11	50	127	10	00				<i>Telfer Power Station Interconnect Stage 1</i>
<i>AmpControl</i>	O NE 03-07-012	1	11	50	127	10	00				<i>Australia</i>
<i>S.E.G.</i>	O NE 03-11-001	1	11	50	127	10	54				<i>Umm Al Nar (United Arab Emirates)</i>
<i>AmpControl</i>	O NE 04-10-011	2	11	50	127	10	00				<i>Pioneer Sugar Mill (Australia)</i>
<i>AmpControl</i>	O NE 01-11-002	1	11	65	98	10	23				<i>Australia</i>

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PowerCap Electric	O NE 01-03-002	1	11	100	63,5	10	23				SFI,SABAH
PowerCap Electric	O NE 01-09-001	1	11	100	63,5	10	23	✓	✓		Putra Jaya Precint (2)
PowerCap Electric	O NE 02-08-003	1	11	100	63,5	10	23				Putra Jaya Precint
AmpControl	O NE 02-09-008	3	11	100	63,5	10	00				Australia
Siemens PTD	O NE 03-06-001	1	11	100	63,5	10	54				BP Azeri Project
S.E.G.	O NE 03-08-008	1	11	100	63,5	10	54				Germany
Industrial Power Technology	O NE 03-11-010	2	11	100	63,5	10			✓		Felda Power Plant (Malaysia)
Enertelindo	O NE 04-01-002	1	11	100	63,5	10	54	✓			Indonesia
S.E.G.	O NE 04-10-003	2	11	100	63,5	10	23				Dubai Airport (United Arab Emirates)
Wartsila	O NE 03-03-004	3	11	120	53	10	54	✓	✓		Fula Oil - Sudan
S.E.G.	O NE 04-08-005	1	11	150	42,34	10	23				Germany
S.E.G.	O NE 04-02-012	2	11	200	31,75	10	23				Sri Lanka
AmpControl	O NE 01-11-006	1	11	200	32	30	23				Australia
PowerCap Electric	O NE 00-04-003	1	11	300	21	10	23				SFI-SABAH (Malaysia)
S.E.G.	O NE 01-04-003	1	11	300	21,1	10	23				United Arab Emirates
ABB Near East Trading	O NE 00-12-007	6	11	300	21	30	54	✓		✓	Iraq S/S
Alstom St Priest	O NE 01-05-003	1	11	300	21	30	23	✓			Iraq
ABB Near East Trading	O NE 01-09-002	20	11	300	21,1	30	54	✓		✓	Iraq S/S
ABB Near East Trading	O NE 04-10-004	28	11	300	21	30	54	✓	✓	✓	Baghdad S/Stns (Iraq)
Schneider Electric	O NE 00-08-003	2	11	400	16	10	54				Kerteh LDPE (Malaysia)
PowerCap Electric	O NE 00-08-007	1	11	400	16	10	23				Unisem, PERAK
PowerCap Electric	O NE 04-08-002	1	11	400	16	10	00				KHL (Malaysia)
PowerCap Electric	O NE 02-01-002	2	11	425	15	10	23	✓	✓		Acidchem International
AmpControl	O NE 02-01-001	1	11	500	12,7	5	00				Australia
AmpControl	O NE 03-08-004	1	11	500	12,7	5	00				New Zealand
AmpControl	O NE 03-12-006	1	11	500	12,7	5	00				Australia
Schneider Electric	O NE 03-07-003	2	11	500	12~15	30	23				El Tal El Kebeer 66/11kV
ABB High Voltage	O NE 03-10-012	1	11	500	12-15	30	54	✓	✓	✓	Eslah 3 & 4 S/Stns (Egypt)

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ABB High Voltage	O NE 04-06-001	2	11	500	12-15	30	54	✓	✓	✓	North Aswan (Egypt)
Egemac	O NE 04-07-002	14	11	500	12-15	30	54				Sohag North S/S (Egypt)
PowerCap Electric	O NE 00-04-004	2	11	530	12	20	23	✓	✓		Penang Project
PowerCap Electric	O NE 00-10-003	1	11	530	12	20	23				IESA SDN BHD, JABIL CIRCUIT
PowerCap Electric	O NE 01-12-001	1	11	600	10,6	10	23	✓	✓		Power House
Koncar Power Transformers	O NE 03-03-009	1	11	600	12	10	23	✓			Shuweihat (UAE)
ABB High Voltage	O NE 03-08-002	1	11	650	10	30	54	✓	✓	✓	El Darfala 66/11kV S/S
ABB High Voltage	O NE 03-08-003	1	11	650	10	30	54	✓	✓	✓	Yafea en Yazeed 66/11kV S/S
Egemac	O NE 03-09-004	7	11	650	24	30	54				Rabaa El Adwia & El Mostathmreen S/S
ABB High Voltage	O NE 03-09-007	1	11	650	15-20	30	54	✓	✓	✓	Mobile 66/11kV S/Stn (Egypt)
Egemac	O NE 03-12-007	7	11	650	10	30	54				El Azhar & Badrasheen S/Stns (Egypt)
Egemac	O NE 04-07-002	6	11	650	10	30	54				Sohag North S/S (Egypt)
PowerCap Electric	O NE 03-08-010	1	11	656	10	10	00				Intel Kulim Kedah
PowerCap Electric	O NE 03-12-015	1	11	656	10	10	00				Aimst / Kedah (Malaysia)
PowerCap Electric	O NE 00-07-001	1	11	800	8	10	23				Tanjung Langsat Cogeneration(Malaysia)
PowerCap Electric	O NE 00-08-005	1	11	800	8	10	23				Texas Instrument, KL
PowerCap Electric	O NE 00-10-004	1	11	800	8	10	23				SIME TYRE, KEDAH
PowerCap Electric	O NE 01-01-001	1	11	800	8	10	23				UITM, SHAH ALAM
PowerCap Electric	O NE 01-03-005	1	11	800	8	10	23				NBCT, PENANG
PowerCap Electric	O NE 01-04-008	2	11	800	8	10	23				Malaysia
PowerCap Electric	O NE 01-12-008	2	11	800	8	10	23	✓	✓		Malaysia
PowerCap Electric	O NE 03-03-002	2	11	800	8	10	23				TNB SG. Rambai
PowerCap Electric	O NE 03-03-010	1	11	800	8	10	23				Sa'Aibon Lektrik / Sabah Electricity
PowerCap Electric	O NE 03-04-003	1	11	800	8	10	23				Um Sabah
PowerCap Electric	O NE 03-08-010	1	11	800	8	10	00				Intel Kulim Kedah
PowerCap Electric	O NE 04-03-002	1	11	800	8	10	00				Malaysia
PowerCap Electric	O NE 04-05-010	1	11	800	8	10	00				Sesco
PowerCap Electric	O NE 01-08-004	1	11	800	8	30	00	✓	✓		Cyberjaya (Malaysia)

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<i>Sciencetech</i>	O NE 00-12-005	2	11	1000	6,35	10	54	✓	✓		<i>New Fujairah Tower (U.A.E.)</i>
<i>PowerCap Electric</i>	O NE 04-08-002	1	11	1050	6	10	00				<i>Uum (Malaysia)</i>
<i>PowerCap Electric</i>	O NE 03-07-008	1	11	1600	4	10	00				<i>Smart - Mainhead B</i>
<i>PowerCap Electric</i>	O NE 03-12-016	1	11	1600	4	10	00				<i>Malaysia</i>
<i>PowerCap Electric</i>	O NE 04-03-002	1	11	1600	4	10	00				<i>Malaysia</i>
<i>PowerCap Electric</i>	O NE 04-05-010	1	11	1600	4	10	00				<i>Sesco</i>
<i>AmpControl</i>	O NE 04-05-006	1	12,3	25	275	-	00				<i>Australia</i>
<i>Koncar Power Transformers</i>	O NE 02-02-005	10	12,5	600	12	10	23				<i>Shuweihat U.A.E.</i>
<i>Koncar Power Transformers</i>	O NE 02-02-005	4	12,5	600	12	10	23	✓			<i>Shuweihat U.A.E 60</i>
<i>Koncar Power Transformers</i>	O NE 02-02-005	2	12,5	600	12	10	23	✓			<i>Shuweihat U.A.E 61</i>
<i>Koncar Power Transformers</i>	O NE 02-02-005	4	12,5	600	12	10	23	✓			<i>Shuweihat U.A.E 62</i>
<i>Enertelindo</i>	O NE 03-12-008	1	12,5	600	12	10	23	✓			<i>Indonesia</i>
<i>Koncar Power Transformers</i>	O NE 03-12-011	1	12,5	600	12	10	23	✓			<i>Shuweihat</i>
<i>Wartsila</i>	O NE 04-03-003	1	13,8	5	1593	10	23	✓	✓		<i>SPCC Bisha</i>
<i>S.E.G.</i>	O NE 02-06-008	1	13,8	30	265	10	23				<i>Equator</i>
<i>Al Toukhi Company</i>	O NE 00-08-002	2	13,8	50	160	10	23				<i>Tabarjal PP Extension (Saudi Arabia)</i>
<i>S.E.G.</i>	O NE 02-03-004	1	13,8	50	160	10	23				<i>Saudi Arabia</i>
<i>S.E.G.</i>	O NE 03-09-009	1	13,8	50	160	10	54				<i>Iran</i>
<i>S.E.G.</i>	O NE 00-03-002	2	13,8	100	80	10	54				<i>Abu Dhabi</i>
<i>S.E.G.</i>	O NE 01-06-007	1	13,8	100	80	10	23				<i>Germany</i>
<i>S.E.G.</i>	O NE 01-12-005	1	13,8	150	53	10	54				<i>Dominican Republic</i>
<i>AmpControl</i>	O NE 03-12-002	1	13,8	200	40	10	00				<i>Australia</i>
<i>Enertelindo</i>	O NE 04-05-001	1	13,8	200	40	10	23				<i>Indonesia</i>
<i>AmpControl</i>	O NE 02-04-004	1	13,8	250	32	10	00				<i>Alcoa</i>
<i>S.E.G.</i>	O NE 02-06-009	1	13,8	250	32	30	23				<i>Blureese (Guatemala)</i>
<i>S.E.G.</i>	O NE 03-02-001	1	13,8	250	32	30	54				<i>Germany</i>
<i>Wartsila</i>	O NE 02-02-001	1	13,8	400	20	5	23				<i>Guafita</i>
<i>Wartsila</i>	O NE 02-02-001	1	13,8	400	20	5	23				<i>Guafita</i>

Neutral Earthing Resistors Some References

<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
ABB Contracting	O NE 02-12-003	1	13,8	400	20	10	23	✓	✓		Al-Wajh
ABB Contracting	O NE 02-12-003	1	13,8	400	20	10	23	✓	✓		Al-Ulla
ABB Contracting	O NE 02-12-003	1	13,8	400	20	10	23	✓	✓		Extension of Tabuk
Charles Pearson	O NE 03-11-004	1	13,8	400	10	10	23		✓		Saudi Arabia
ABB	O NE 04-08-001	2	13,8	400	20	10	23	✓			Jacob Marathon (USA)
Enertelindo	O NE 04-09-003	4	13,8	400	20	10	23	✓			Indonesia
Areva T&D	O NE 04-10-001	2	13,8	400	20	10	23				Caltex (Indonesia)
Al Toukhi Company	O NE 02-05-005	3	13,8	800	10	5	23	✓			Al Fakhriyah
Al Toukhi Company	O NE 02-05-005	3	13,8	800	10	5	23	✓			Shawwal
MeppCo	O NE 00-10-007	1	13,8	1500	5,3	10	54	✓	✓		Bahra S/S (Saudi Arabia)
Al Toukhi Company	O NE 01-10-003	1	13,8	1500	5,3	10	23	✓	✓		Khulais S/S (Saudi Arabia)
MeppCo	O NE 01-10-004	1	13,8	1500	5,3	10	23	✓	✓		ICY-3 Substation (Saudi Arabia)
Siemens	O NE 01-12-002	2	13,8	1500	5,3	10	23	✓	✓		University III
Siemens	O NE 01-12-004	1	13,8	1500	5,3	10	23	✓	✓		Al Zahra
Arabian BemCo Contracting	O NE 02-06-003	1	13,8	1500	5,3	10	23	✓	✓		Sawamlah & Al Leith
ABB Contracting	O NE 02-12-003	1	13,8	1500	5,3	10	23	✓	✓		Ummluj
ABB Contracting	O NE 02-12-003	1	13,8	1500	5,3	10	23	✓	✓		Yanbu North
Arabian BemCo Contracting	O NE 03-01-002	1	13,8	1500	5,3	10	54	✓	✓		Al-Safa
MeppCo	O NE 03-07-013	1	13,8	1500	5,3	10	54	✓	✓		110/13,8kV Madain Al-Fahad S/S
MeppCo	O NE 03-09-003	1	13,8	1500	5,3	10	54	✓	✓		Haddah S/S (Saudi Arabia)
Arabian BemCo Contracting	O NE 03-12-014	1	13,8	1500	5,3	10	54	✓	✓		Khayber S/Stn (Saudi Arabia)
Arabian BemCo Contracting	O NE 03-12-014	1	13,8	1500	5,3	10	54	✓	✓		Al-Aous S/Stn (Saudi Arabia)
Arabian BemCo Contracting	O NE 03-12-014	1	13,8	1500	5,3	10	54	✓	✓		Saudi City S/Stn (Saudi Arabia)
Arabian BemCo Contracting	O NE 03-12-014	1	13,8	1500	5,3	10	54	✓	✓		Haram III S/Stn (Saudi Arabia)
Alfanar	O NE 04-03-006	1	13,8	1500	5,3	10	54	✓	✓		Rabigh Power Plant (3rd Standby Trafo)
Wärsilä	O NE 03-09-001	6	15	5	1732	10	23	✓	✓		Finland
MeppCo	O NE 00-10-006	6	15	2000	4	10	54		✓		Yanbu S/S (Saudi Arabia)
ABB Ltd	O NE 00-05-002	25	17,5	20	50	-	23				Keppo (Korea)

Neutral Earthing Resistors Some References

<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
ABB Ltd	O NE 01-03-001	7	17,5	20	50	-	23				<i>Kepeco (Korea)</i>
S.E.G.	O NE 03-04-007	2	20	5	2540	-	23				<i>BMW</i>
Alstom Massy	O NE 01-04-005	2	20	150	80	5	23	✓			<i>Italy</i>
Clemessy	O NE 01-08-006	2	20	300	38,5	5	54				<i>Madagascar</i>
PT Unindo	O NE 02-10-001	1	20	300	40	10	23				<i>PLN</i>
PT Siemens	O NE 02-10-003	1	20	300	40	10	23				<i>PLN</i>
ABB T&D	O NE 03-07-001	1	20	300	40	10	23	✓	✓		<i>BLTD Batu Ampar</i>
Enertelindo	O NE 03-07-007	1	20	300	40	10	23	✓			<i>Gunung Malang 150kV S/S</i>
Enertelindo	O NE 03-07-011	1	20	300	40	10	23				<i>Indonesia</i>
Enertelindo	O NE 03-09-002	1	20	300	40	10	54				<i>Indonesia</i>
Enertelindo	O NE 04-05-007	1	20	300	40	10	23	✓			<i>Indonesia</i>
Enertelindo	O NE 04-07-004	1	20	300	40	10	23	✓			<i>Indonesia</i>
Enertelindo	O NE 04-07-010	1	20	300	40	10	23	✓			<i>Payakumbuh PP (Indonesia)</i>
Enertelindo	O NE 04-07-011	2	20	300	40	10	23	✓			<i>Indonesia</i>
Enertelindo	O NE 04-07-012	1	20	300	40	10	23	✓			<i>Indonesia</i>
Enertelindo	O NE 04-08-003	2	20	300	40	10	54	✓			<i>Indonesia</i>
Enertelindo	O NE 03-12-005	1	20	300	40	30	54	✓	✓		<i>Boepinang (Indonesia)</i>
Enertelindo	O NE 04-05-002	1	20	300	40	30	23	✓	✓		<i>Indonesia</i>
Enertelindo	O NE 04-05-003	1	20	300	40	30	23				<i>Musi HEPP</i>
Pauwels Trafo	O NE 02-05-006	1	20	320	40	10	23				<i>Indonesia</i>
Logix	O NE 00-04-002	1	20	600	20	30	23				<i>Cairo (Egypt)</i>
PT Team Inti PowerIndo	O NE 04-07-013	1	20	1000	11,55	10	23	✓			<i>Indonesia</i>
Areva T&D	O NE 04-09-001	1	20	1000	11,55	10	23				<i>Indonesia</i>
S.E.G.	O NE 01-08-001	3	20	1000	11,5	30	54				<i>Germany</i>
AmpControl	O NE 00-10-005	1	22	20	635	-	00				<i>Australia</i>
AmpControl	O NE 01-12-003	2	22	70	181	10	23				<i>Australia</i>
ABB High Voltage	O NE 03-10-012	1	22	650	12-20	30	54	✓	✓	✓	<i>Eslah 3 & 4 S/Stms (Egypt)</i>
Trust Chemincal Industries	O NE 03-11-009	4	22	650	20	30	54				<i>Egypt</i>

Neutral Earthing Resistors Some References

<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
ABB High Voltage	O NE 04-06-001	4	22	650	20	30	54	✓	✓	✓	New Cairo 220kV S/S (Egypt)
Egemac	O NE 04-07-002	7	22	650	12-20	30	54				Sohag North S/S (Egypt)
PowerCap Electric	O NE 03-09-006	1	22	800	16	10	00				Smart Mainhead B (Malaysia)
AmpControl	O NE 00-12-004	1	22	900	14,1	3	23				Australia
AmpControl	O NE 01-02-003	1	22	1587	8	10	00				Australia
AmpControl	O NE 02-06-006	1	22	1588	8	3	00				City Power
AmpControl	O NE 02-08-002	1	22	1588	8	10	00				Australia
AmpControl	O NE 03-05-006	1	22	1588	8	10	00				Australia
Meiden	O NE 03-11-002	1	22	2000	6,35	12	23				Powergrid
ABB Industry Pte	O NE 03-12-012	2	22	2000	6,35	15	23				Singapore
Alstom Massy	O NE 03-03-008	2	23	5	2655	2	23				France
Alstom St Priest	O NE 00-06-003	2	23	177	75	10	23	✓			El Tesoro (Chile)
Egemac	O NE 03-03-003	2	24	650	20~24	30	23				East Quantara
PowerCap Electric	O NE 03-05-007	1	25	2000	7,2	30	23				Mega Steel
PowerCap Electric	O NE 04-03-004	1	25	2000	7,2	30	00				Mega Steel
S.E.G.	O NE 04-10-003	1	30	200	86,6	10	23				Dubai Airport (United Arab Emirates)
Wartsila	O NE 04-02-005	1	31,5	100	182	10	23		✓		Antam PP3
PowerCap Electric	O NE 03-03-010	1	33	200	95	10	23				Sa'Aibon Lektrik / Sabah Electricity
AmpControl	O NE 02-01-003	1	33	250	76,2	10	23				Alcoa
AmpControl	O NE 02-06-002	1	33	250	76	10	00				Alcoa
AmpControl	O NE 02-11-003	1	33	250	76,2	30	00				Australia
PowerCap Electric	O NE 03-03-010	1	33	300	63,5	10	23				Sa'Aibon Lektrik / Sabah Electricity
PowerCap Electric	O NE 02-11-007	2	33	300	63,5	30	23				Petronas Methanol (Labuan)
AmpControl	O NE 02-02-004	1	33	400	18	10	23				Woodside
AmpControl	O NE 02-02-004	1	33	400	18	10	00				Woodside
AmpControl	O NE 03-08-004	1	33	500	38	5	00				New Zealand
ABB Industry Pty	O NE 03-08-007	1	33	750	25,4	10	54				ISN Phase II
Al Hassan Company	O NE 00-11-002	2	33	1000	19	30	55		✓		Al Sharqiya Power (Oman)

Neutral Earthing Resistors Some References

<i>Contractor</i>	<i>O/Ref</i>	<i>Qty</i>	<i>Ur</i> <i>kV</i>	<i>In</i> <i>A</i>	<i>Rn</i> <i>Ω</i>	<i>Tn</i> <i>Sec</i>	<i>IP</i>	<i>C.T.</i>	<i>Switch</i>	<i>Surge</i> <i>Arrestor</i>	<i>Project</i>
<i>Civil Contracting Co.</i>	O NE 04-07-008	2	33	1000	19,05	30	54	✓	✓		<i>Rustaq Transmission System (Oman)</i>
<i>Wartsila</i>	O NE 03-10-002	7	33	1190	16	10	54	✓	✓	✓	<i>Sanaa South (Sudan)</i>
<i>Al Toukhi Company</i>	O NE 01-10-003	1	33	1350	15	10	23	✓	✓		<i>Khulais S/S (Saudi Arabia)</i>
<i>Al Hassan Company</i>	O NE 00-11-002	6	33	1500	12,7	30	55		✓		<i>Al Sharqiya Power (Oman)</i>
<i>Al Hassan Company</i>	O NE 01-07-002	1	33	1500	12,7	30	55		✓		<i>Al Sharqiya Power (Oman)</i>
<i>Al Toukhi Company</i>	O NE 02-05-005	3	33	3000	6,35	5	23	✓			<i>Al Sulaimaniyah</i>
<i>ABB Ltd</i>	O NE 02-09-005	1	34,5	400	50	10	23				<i>United Project</i>
<i>Koncar Power Transformers</i>	O NE 00-07-002	1	34,5	400	50	30	54				<i>Ireland</i>
<i>ABB Contracting</i>	O NE 02-09-006	1	34,5	750	26,5	10	54				<i>SIPC</i>
<i>AmpControl</i>	O NE 03-12-003	5	36,5	100	211	10	54				<i>Sakhalin (Russia)</i>
<i>Enertelindo</i>	O NE 04-09-002	3	36,5	400	92	10	23				<i>Tuban Aromatic Plant (Indonesia)</i>
<i>VATech - Lyon</i>	O NE 02-11-008	1	40	200	115	5	54				<i>Tomago (Australia)</i>
<i>Microelettrica Scientifica</i>	O NE 00-12-003	1	44	20	1270	20	23				<i>Sweden</i>
<i>Koncar EVA</i>	O NE 01-08-007	1	47	860	31,75	2	23				<i>Croatia</i>
<i>Pauwels Trafo</i>	O NE 02-05-006	1	66	500	76	10	23				<i>Indonesia</i>
<i>Alstom Massy</i>	O NE 02-10-002	2	66	2000	18	5	23				<i>Netherlands</i>
<i>VATech - Lyon</i>	O NE 01-08-005	1	69	200	200	5	23				<i>Tomago (Australia)</i>
<i>AmpControl</i>	O NE 01-05-001	1	69	250	130	10	23				<i>Australia</i>
<i>ABB T&D</i>	O NE 03-08-005	4	70	200	200	30	23				<i>Region 4 (PTPS)</i>
<i>AmpControl</i>	O NE 03-12-001	1	82	200	237	5	23	✓			<i>Tomago Aluminium</i>
<i>ABB Industry</i>	O NE 02-05-001	1		2250kJ	20	-	00				<i>Switzerland</i>