mecc alte

Guida Tecnica:
Potenze

Technical Guide:
Ratings Book

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INSULATION SYSTEM
E309573
LISTED

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Additional Information

ECO & ECP Brushless Alternator with AVR 50 or 60Hz 1Phase or 3Phase
4 Pole Marine | ECO & ECP

For marine Alternator Range please refer to Marine Ratings Book

Rating Definitions:

Standby Rating

Standby Rating is selected for supplying emergency power for the duration of normal power interruption. Overload on this rating is not allowed.

From the generator point of view, if the emergency power is required continuously for more than one hour sizing is in accordance with 150°/40° or 163°/27° conditions. Also, if the overload duration is less than one hour, then the generator accepts 10% overload above Prime Ratings for 125°/40° or the 125°/27° ratings.

In the 'Ratings Book' you can find ratings for:

- 150°/40°: Peak continuous ratings according to ISO8528-3.
- 163°/27° : Emergency peak continuous rating, not defined in ISO specification. Suitable for stand-by sizing only.

The ratings are then suitable for supplying continuous electrical power, at variable load, for the duration of any utility power failure. These ratings allow temperature to rise above the temperature rise class H limit which can result in a shorter insulation life. The 10% overload is not available at these ratings.

Prime Rating

Prime Rating is the maximum power available at a variable load for an unlimited number of hours: it allows the possibility of a 10% overload.

This is equivalent to Prime Power in accordance with ISO8528 and Overload Power in accordance with ISO3046, AS2789, DIN6271, and BS5514. From the generator point of view, it is sized according to the class B, F, H temperature rise requirements or 125°/27° rating.

In the 'Ratings Book' you can find ratings for:

- 80°/40°: this condition is equivalent to Class B temperature rise. 10% overload on 1 hour over 6 hours is allowed.
- 105°/40°: this condition is equivalent to Class F temperature rise. 10% overload on 1 hour over 6 hours is allowed.
- 125°/40°: this condition is equivalent to Class H temperature rise. 10% overload on 1 hour over 6 hours is allowed.
- 125°/27°: ratings at this condition are equivalent to those listed for the 150°/40° condition if not listed. 10% overload on 1 hour over 6 hours is allowed.

We suggest that customers contact the local Mecc Alte Sales representative for guidance on generator selection.

AVR Controlled Ratings 3ph 400v or 200v 50Hz 1500rpm

4 Pole | 50Hz | 3Phase

Voltage: 400 or 200

RPM: 1500

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF					
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/27**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	7	6.8	6.8	6.5	6	5.3
ECP3-2S/4	70	12	DSR	8.8	8.3	8.3	8	7.5	6.4
ECP3-1L/4	82	12	DSR	11.8	11.4	11.4	11	10	8.8
ECP3-2L/4	91.5	12	DSR	14.5	14	14	13.5	12.5	10.8
ECP3-3L/4	96	12	DSR	16	15.5	15.5	15.0	14	12
ECP28-S/4	107	12	DSR	18	17.5	17.5	17	16	13.6
ECP28-M/4	122	12	DSR	21.5	20.5	20.5	20	18.5	16
ECP28-2L/4	139	12	DSR	26.5	25.5	25.5	25	23	20
ECP28-VL/4	165	12	DSR	32.5	30.5	30.5	30	26	24
ECO32-2S/4	199	12	SR7/2	39	36.7	36.7	35	33	28
ECO32-3S/4	214	12	SR7/2	48	46	46	42.5	39	34
ECO32-1L/4	248	12	SR7/2	56	52.5	52.5	50	48	40
ECO32-2L/4	282	12	SR7/2	68	62.5	62.5	60	57	49
ECO32-3L/4	298	12	SR7/2	83	78	78	75	67	60
ECP34-1S/4	341	12	DSR	95	90	90	85	77	68
ECP34-2S/4	419	12	DSR	116	110	110	105	95	84
ECP34-1L/4	445	12	DSR	143	137	138	130	118	104
ECP34-2L/4	491	12	DSR	164	158	158	150	136	120
ECP34-3L/4	495	12	DSR	175	169	169	160	145	128
ECO38-1SN/4	510	12	DSR	196	188	188	180	170	144
ECO38-2SN/4	560	12	DSR	220	211	211	200	185	160
ECO38-3SN/4	590	12	DSR	250	237	237	225	207	180
ECO38-1LN/4	680	12	DSR	275	264	264	250	230	200
ECO38-2LN/4	765	12	DSR	330	315	315	300	275	240
ECO38-3LN/4	905	12	DSR	370	360	360	350	320	280
ECO40-1S/4	1040	12	DER1	437	417	417	400	370	320
ECO40-2S/4	1118	12	DER1	491	468	468	450	410	360
ECO40-3S/4	1171	12	DER1	546	521	521	500	450	400
ECO40-1L/4	1324	12	DER1	601	576	567	550	500	440
ECO40-1.5L/4	1380	12	DER1	670	640	640	620	560	496
ECO40-2L/4	1586	12	DER1	735	700	700	680	630	544
ECO40-VL/4	1693	12	DER1	779	740	740	720	660	576
ECO43-1SN/4	1870	12	DER1	874	840	840	800	730	640
ECO43-2SN/4	2090	12	DER1	1016	975	975	930	850	744
ECO43-1LN/4	2395	12	DER1	1201	1150	1150	1100	1000	880
ECO43-2LN/4	2660	12	DER1	1420	1358	1358	1300	1200	1040
ECO43-VLN/4	2950	12	DER1	1520	1470	1470	1400	1280	1120
ECO46-1S/4	2770	12	DER1	1620	1552	1552	1500	1350	1200
ECO46-1.5S/4	3380	12	DER1	1780	1700	1700	1650	1480	1320
ECO46-2S/4	3440	12	DER1	1944	1863	1863	1800	1600	1440
ECO46-1L/4	3870	12	DER1	2268	2173	2173	2100	1900	1680
ECO46-1.5L/4	4260	12	DER1	2480	2380	2380	2300	2050	1840
ECO46-2L/4	4250	12	DER1	2700	2588	2588	2500	2250	2000

All machines have an auxiliary winding 'standard' with 300% short circuit capability

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 380v 50Hz 1500rpm

4 Pole | 50Hz | 3Phase

Voltage: 380 or 190

RPM: 1500

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	7	6.8	6.5	6.3	5.3
ECP3-2S/4	70	12	DSR	8.8	8.3	8	7.5	6.4
ECP3-1L/4	82	12	DSR	11.8	11.4	11	10	8.8
ECP3-2L/4	91.5	12	DSR	14.5	14	13.5	12.5	10.8
ECP3-3L/4	96	12	DSR	16	15.5	15	14	12
ECP28-S/4	107	12	DSR	18	17.5	17	16	13.6
ECP28-M/4	122	12	DSR	21.5	20.5	20	18.5	16
ECP28-2L/4	139	12	DSR	26.5	25.5	25	23	20
ECP28-VL/4	165	12	DSR	32.5	30.5	30	26	24
ECO32-2S/4	199	12	SR7/2	39	36.7	35	33	28
ECO32-3S/4	214	12	SR7/2	48	46	42.5	37	34
ECO32-1L/4	248	12	SR7/2	56	52.5	50	39	40
ECO32-2L/4	282	12	SR7/2	68	62.5	60	57	49
ECO32-3L/4	298	12	SR7/2	83	78	75	67	60
ECP34-1S/4	341	12	DSR	95	90	85	78	68
ECP34-2S/4	419	12	DSR	116	111	105	95	84
ECP34-1L/4	445	12	DSR	143	138	130	118	104
ECP34-2L/4	491	12	DSR	164	158	150	136	120
ECP34-3L/4	495	12	DSR	175	169	160	145	128
ECO38-1SN/4	510	12	DSR	196	188	180	170	144
ECO38-2SN/4	560	12	DSR	220	211	200	185	160
ECO38-3SN/4	590	12	DSR	250	238	225	208	180
ECO38-1LN/4	680	12	DSR	278	264	250	230	200
ECO38-2LN/4	765	12	DSR	330	315	300	275	240
ECO38-3LN/4	905	12	DSR	370	360	350	320	280
ECO40-1S/4	1040	12	DER1	438	417	400	370	320
ECO40-2S/4	1118	12	DER1	491	468	450	410	360
ECO40-3S/4	1171	12	DER1	546	521	500	450	400
ECO40-1L/4	1324	12	DER1	601	567	550	500	440
ECO40-1.5L/4	1380	12	DER1	670	640	620	560	496
ECO40-2L/4	1586	12	DER1	735	700	680	630	544
ECO40-VL/4	1693	12	DER1	779	740	720	660	576
ECO43-1SN/4	1870	12	DER1	874	840	800	730	640
ECO43-2SN/4	2090	12	DER1	1016	975	930	850	744
ECO43-1LN/4	2395	12	DER1	1201	1150	1100	1000	880
ECO43-2LN/4	2660	12	DER1	1420	1358	1300	1200	1040
ECO43-VLN/4	2950	12	DER1	1520	1470	1400	1280	1120
ECO46-1S/4	2770	12	DER1	1620	1552	1500	1350	1200
ECO46-1.5S/4	3380	12	DER1	1780	1700	1650	1480	1320
ECO46-2S/4	3440	12	DER1	1944	1863	1800	1600	1440
ECO46-1L/4	3870	12	DER1	2268	2173	2100	1900	1680
ECO46-1.5L/4	4260	12	DER1	2480	2380	2300	2050	1840
ECO46-2L/4	4250	12	DER1	2700	2588	2500	2250	2000

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 440v or 220v 50hz 1500rpm

4 Pole | 50Hz | 3Phase

Voltage: 440 or 220

RPM: 1500

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	5.9	5.6	5.5	5	4.4
ECP3-2S/4	70	12	DSR	7.4	7	6.8	6.4	5.4
ECP3-1L/4	82	12	DSR	9.6	9.4	9	8	7.3
ECP3-2L/4	91.5	12	DSR	11.9	11.4	11	10	8.8
ECP3-3L/4	96	12	DSR	12.8	12.4	12	10.5	9.6
ECP28-S/4	107	12	DSR	16.4	16	15.5	14.5	12.4
ECP28-M/4	122	12	DSR	19.4	18.5	18	17	14.4
ECP28-2L/4	139	12	DSR	NA	NA	NA	NA	NA
ECP28-VL/4	165	12	DSR	NA	NA	NA	NA	NA
ECO32-2S/4	199	12	SR7/2	31	30	28	26	23
ECO32-3S/4	214	12	SR7/2	38	36	34	32	28
ECO32-1L/4	248	12	SR7/2	45	43	40	38	33
ECO32-2L/4	282	12	SR7/2	55	53	50	45	40
ECO32-3L/4	298	12	SR7/2	78	74	70	56	56
ECP34-1S/4	341	12	DSR	78	75	70	63	56
ECP34-2S/4	419	12	DSR	94	90	85	78	68
ECP34-1L/4	445	12	DSR	120	116	110	99	88
ECP34-2L/4	491	12	DSR	136	131	125	113	100
ECP34-3L/4	495	12	DSR	175	140	150	135	120
ECO38-1SN/4	510	12	DSR	180	173	165	155	133
ECO38-2SN/4	560	12	DSR	209	200	190	175	153
ECO38-3SN/4	590	12	DSR	234	221	210	190	168
ECO38-1LN/4	680	12	DSR	253	243	230	215	184
ECO38-2LN/4	765	12	DSR	319	305	290	265	233
ECO38-3LN/4	905	12	DSR	360	350	340	310	273
ECO40-1S/4	1040	12	DER1	404	389	370	343	296
ECO40-2S/4	1118	12	DER1	459	441	420	385	336
ECO40-3S/4	1171	12	DER1	503	483	460	414	368
ECO40-1L/4	1324	12	DER1	546	525	500	454	400
ECO40-1.5L/4	1380	12	DER1	616	598	570	515	456
ECO40-2L/4	1586	12	DER1	681	661	630	585	504
ECO40-VL/4	1693	12	DER1	NA	NA	NA	NA	NA
ECO43-1SN/4	1870	12	DER1	754	725	690	610	553
ECO43-2SN/4	2090	12	DER1	918	883	840	770	673
ECO43-1LN/4	2395	12	DER1	1093	1050	1000	910	800
ECO43-2LN/4	2660	12	DER1	1349	1296	1235	1140	988
ECO43-VLN/4	2950	12	DER1	NA	NA	NA	NA	NA
ECO46-1S/4	2770	12	DER1	NA	NA	NA	NA	NA
ECO46-1.5S/4	3380	12	DER1	NA	NA	NA	NA	NA
ECO46-2S/4	3440	12	DER1	NA	NA	NA	NA	NA
ECO46-1L/4	3870	12	DER1	NA	NA	NA	NA	NA
ECO46-1.5L/4	4260	12	DER1	NA	NA	NA	NA	NA
ECO46-2L/4	4250	12	DER1	NA	NA	NA	NA	NA

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 380-415v or 190-208v 1500rpm – Broad Voltage

4 Pole | 50Hz | 3Phase

Voltage: 380-415/190-208 | Broad Voltage

RPM: 1500

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	7	6.8	6.5	6.3	5.3
ECP3-2S/4	70	12	DSR	8.8	8.3	8	7.5	6.4
ECP3-1L/4	82	12	DSR	11.8	11.4	11	10	8.8
ECP3-2L/4	91.5	12	DSR	14.5	14	13.5	12.5	10.8
ECP3-3L/4	96	12	DSR	16	15.5	15	14	12
ECP28-S/4	107	12	DSR	18	17.5	17	16	13.6
ECP28-M/4	122	12	DSR	21.5	20.5	20	18.5	16
ECP28-2L/4	139	12	DSR	26.5	25.5	25	23	20
ECP28-VL/4	165	12	DSR	29.9	28.9	28	25	22.4
ECO32-2S/4	199	12	SR7/2	39	36.7	35	33	28
ECO32-3S/4	214	12	SR7/2	48	46	42.5	37	34
ECO32-1L/4	248	12	SR7/2	56	52.5	50	48	40
ECO32-2L/4	282	12	SR7/2	68	62.5	60	58	48
ECO32-3L/4	298	12	SR7/2	83	78	75	67	60
ECP34-1S/4	341	12	DSR	95	90	85	78	68
ECP34-2S/4	419	12	DSR	116	111	105	95	84
ECP34-1L/4	445	12	DSR	143	138	130	118	104
ECP34-2L/4	491	12	DSR	164	158	150	136	120
ECP34-3L/4	495	12	DSR	175	168	160	145	128
ECO38-1SN/4	510	12	DSR	196	188	180	170	144
ECO38-2SN/4	560	12	DSR	220	210	200	185	160
ECO38-3SN/4	590	12	DSR	250	238	225	208	180
ECO38-1LN/4	680	12	DSR	275	264	250	230	200
ECO38-2LN/4	765	12	DSR	330	315	300	275	240
ECO38-3LN/4	905	12	DSR	370	360	350	320	280
ECO40-1S/4	1040	12	DER1	438	417	400	370	320
ECO40-2S/4	1118	12	DER1	490	468	450	410	360
ECO40-3S/4	1171	12	DER1	546	521	500	450	400
ECO40-1L/4	1324	12	DER1	590	567	540	490	433
ECO40-1.5L/4	1380	12	DER1	670	640	620	560	496
ECO40-2L/4	1586	12	DER1	735	700	680	630	544
ECO40-VL/4	1693	12	DER1	768	740	710	650	568
ECO43-1SN/4	1870	12	DER1	874	840	800	730	640
ECO43-2SN/4	2090	12	DER1	1016	975	930	850	744
ECO43-1LN/4	2395	12	DER1	1201	1150	1100	1000	880
ECO43-2LN/4	2660	12	DER1	1420	1358	1300	1200	1040
ECO43-VLN/4	2950	12	DER1	1450	1400	1330	1210	1064
ECO46-1S/4	2770	12	DER1	1620	1552	1500	1350	1200
ECO46-1.5S/4	3380	12	DER1	1780	1700	1650	1480	1320
ECO46-2S/4	3440	12	DER1	1944	1863	1800	1600	1440
ECO46-1L/4	3870	12	DER1	2268	2173	2100	1900	1680
ECO46-1.5L/4	4260	12	DER1	2480	2380	2300	2050	1840
ECO46-2L/4	4250	12	DER1	2700	2588	2500	2250	2000

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 1Ph Reconnected Winding 50Hz 1500rpm

4 Pole | 50Hz | 1Phase

Voltage: 220/230/240 – 110/115/120 | Reconnected

RPM: 1500

Insulation: Class H

				220/230/240 Volts kW @ 1.0 PF			230V 1.0 PF Eff%	220/230/240 Volts kVA @ 0.8 PF			230v 0.8 PF Eff%
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**150/40**	**125/40**	**105/40**		**150/40**	**125/40**	**105/40**	
ECP3-1S/4	63	12	DSR	4.5	4.4	4.1	75.4	4.1	4	3.7	73.4
ECP3-2S/4	70	12	DSR	5.7	5.5	5.1	77.4	5.2	5	4.7	75.4
ECP3-1L/4	82	12	DSR	7.7	7.5	6.8	78.9	6.9	6.5	6.1	76.9
ECP3-2L/4	91.5	12	DSR	9.3	9	8.3	79.4	8.3	8	7.4	77.4
ECP3-3L/4	96	12	DSR	10.3	10	9.1	79.6	9.3	9	8.2	77.6
ECP28-S/4	107	12	DSR	11.8	11.5	10.7	81.1	10.8	10.5	9.8	79.1
ECP28-M/4	122	12	DSR	13.8	13.5	12.3	81.4	12.2	12	11	79.4
ECP28-2L/4	139	12	DSR	16.7	16.5	15.1	82.1	15.2	15	13.7	80.1
ECP28-VL/4	165	12	DSR	19.5	19	17	82.6	17.5	17	15	80.6
ECO32-2S/4	199	12	SR7/2	25	24	22	82.7	22	21	20	80.7
ECO32-3S/4	214	12	SR7/2	29	27	25	83.4	25	24	23	81.4
ECO32-1L/4	248	12	SR7/2	35	33	32	84.0	32	30	29	82.0
ECO32-2L/4	282	12	SR7/2	42	40	38	84.7	38	36	34	82.7
ECO32-3L/4	298	12	SR7/2	51	48	45	84.8	46	44	41	82.8
ECP34-1S/4	341	12	DSR	57	54	49	84.8	51	48	43	82.8
ECP34-2S/4	419	12	DSR	68	65	59	86.2	61	58	52	84.2
ECP34-1L/4	445	12	DSR	79	75	68	87.2	70	67	60	85.2
ECP34-2L/4	491	12	DSR	85	82	74	88.1	77	74	67	86.1
ECP34-3L/4	495	12	DSR	91	87	79	88.1	82	79	71	86.1
ECO38-1SN/4	510	12	DSR	114	110	102	86.0	108	104	97	84.0
ECO38-2SN/4	560	12	DSR	125	120	110	86.6	120	115	105	84.6
ECO38-3SN/4	590	12	DSR	138	132	122	86.9	131	125	115	84.9
ECO38-1LN/4	680	12	DSR	160	153	142	87.4	153	146	136	85.4
ECO38-2LN/4	765	12	DSR	188	180	165	87.8	173	166	152	85.8
ECO38-3LN/4	905	12	DSR	217	212	194	87.5	205	200	183	85.5
ECO40-1S/4	1040	12	DER1	255	245	227	87.5	234	225	208	85.5
ECO40-2S/4	1118	12	DER1	285	274	250	87.6	263	253	230	85.6
ECO40-3S/4*	1171	12	DER1	315	303	273	87.7	292	281	253	85.7
ECO40-1L/4	1324	12	DER1	347	333	303	87.9	322	309	281	85.9
ECO40-1.5L/4*	1380	12	DER1	391	376	339	88.0	362	348	315	86.0
ECO46-2L/4	1586	12	DER1	429	412	382	88.0	397	382	354	86.0
ECO40-VL/4*	1693	12	DER1	454	436	400	88.1	421	405	371	86.1

*120/115/110 V not available on these three Models.

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Zigzag, Delta, and Double Delta single phase connections available.

Consult Factory to choose for your application.

Ratings achieved by fitting optional copper damper cage (ECP3, ECO28 and ECO32 ranges)

All machines have an auxiliary winding 'standard' with 300% short circuit capability

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 1phase Dedicated Winding 50Hz 1500rpm

4 Pole | 50Hz | 1Phase

Voltage: 220/230/240 – 110/115/120 | Dedicated

RPM: 1500

Insulation: Class H

				220/230/240 Volts kW @ 1.0 PF			230V 1.0 PF Eff%	220/230/240 Volts kVA @ 0.8 PF			230v 0.8 PF Eff%
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**150/40**	**125/40**	**105/40**		**150/40**	**125/40**	**105/40**	
ECP3-1S/4	63	12	DSR	5.1	5	4.6	75.4	4.6	4.5	4.2	73.4
ECP3-2S/4	70	12	DSR	6.2	6	5.6	77.4	5.6	5.4	5.0	75.4
ECP3-1L/4	82	12	DSR	8.8	8.5	7.7	78.9	7.7	7.5	6.9	76.9
ECP3-2L/4	91.5	12	DSR	10.3	10	9.3	79.4	9.3	9	8.4	77.4
ECP3-3L/4	96	12	DSR	11.3	11	9.8	79.6	10.3	10	9.2	77.6
ECP28-S/4	107	12	DSR	12.8	12.5	11.7	81.1	11.6	11.3	10.6	79.1
ECP28-M/4	122	12	DSR	14.8	14.5	13.2	81.4	13.3	13	12	79.4
ECP28-2L/4	139	12	DSR	18.3	18	16.3	82.1	16.4	16	14.8	80.1
ECP28-VL/4	165	12	DSR	21.6	21	19	82.6	19.5	19	17	80.6
ECO32-2S/4	199	12	SR7/2	31	30	28	82.7	28	27	26	80.7
ECO32-3S/4	214	12	SR7/2	35	33	31	83.4	31	30	29	81.4
ECO32-1L/4	248	12	SR7/2	42	40	39	84.0	38	36	35	82.0
ECO32-2L/4	282	12	SR7/2	52	50	48	84.7	47	45	43	82.7
ECO32-3L/4	298	12	SR7/2	62.5	59	54	84.8	56	54	50	82.8
ECP34-1S/4	341	12	DSR	68	65	59	84.8	61	58	51	82.8
ECP34-2S/4	419	12	DSR	79	75	69	86.2	70	67	60	84.2
ECP34-1L/4	445	12	DSR	84	80	72	87.2	76	72	65	85.2
ECP34-2L/4	491	12	DSR	87	83	75	88.1	78	75	68	86.1
ECP34-3L/4	495	12	DSR	NA	NA	NA	-	NA	NA	NA	-
ECO38-1SN/4	510	12	DSR	124	119	110	86.0	116	112	105	84.0
ECO38-2SN/4	560	12	DSR	136	130	119	86.6	130	124	113	84.6
ECO38-3SN/4	590	12	DSR	150	143	132	86.9	142	135	124	84.9
ECO38-1LN/4	680	12	DSR	173	165	153	87.4	165	158	147	85.4
ECO38-2LN/4	765	12	DSR	203	194	178	87.8	187	179	164	85.8
ECO38-3LN/4	905	12	DSR	234	229	210	87.5	221	216	198	85.5
ECO40-1S/4	1040	12	DER1	276	265	245	87.5	253	243	225	85.5
ECO40-2S/4	1118	12	DER1	308	296	270	87.6	284	273	248	85.6
ECO40-3S/4	1171	12	DER1	340	327	295	87.7	316	304	273	85.7
ECO40-1L/4	1324	12	DER1	375	360	327	87.9	348	334	304	85.9
ECO40-1.5L/4	1380	12	DER1	423	406	366	88.0	392	376	340	86.0
ECO46-2L/4	1586	12	DER1	464	445	413	88.0	430	413	382	86.0
ECO40-VL/4	1693	12	DER1	491	471	432	88.1	455	437	401	86.1

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Consult Factory to choose for your application.

Ratings achieved by fitting optional copper damper cage (ECP3, ECO28 and ECO32 ranges)

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 480v or 240v 60Hz 1800rpm

4 Pole | 60Hz | 3Phase

Voltage: 480 or 240

RPM: 1800

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF					
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/27**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	8.4	8	8	7.8	7.2	6.1
ECP3-2S/4	70	12	DSR	10.5	10	10	9.6	9	7.5
ECP3-1L/4	82	12	DSR	14.3	13.8	13.8	13.2	12	10.6
ECP3-2L/4	91.5	12	DSR	17.5	16.9	16.9	16.2	15	13
ECP3-3L/4	96	12	DSR	19.3	18.8	18.8	18.0	16.5	14.4
ECP28-S/4	107	12	DSR	21.5	21	21	20.4	19	16.3
ECP28-M/4	122	12	DSR	25.5	24.6	24.6	24	22	19.1
ECP28-2L/4	139	12	DSR	31.8	30.6	30.6	30	27.5	23.8
ECP28-VL/4	165	12	DSR	38.4	36.6	36.6	36	32	28.8
ECO32-2S/4	199	12	SR7/2	47	44	44	42	40	34
ECO32-3S/4	214	12	SR7/2	57	54	54	51	49	40
ECO32-1L/4	248	12	SR7/2	67	63	63	60	58	48
ECO32-2L/4	282	12	SR7/2	80	75	75	72	69	58
ECO32-3L/4	298	12	SR7/2	100	93.7	93.7	90	84	72
ECP34-1S/4	341	12	DSR	114	108	108	102	92	81
ECP34-2S/4	419	12	DSR	139	132	132	126	114	101
ECP34-1L/4	445	12	DSR	171	165	165	156	141	125
ECP34-2L/4	491	12	DSR	196	189	189	180	163	144
ECP34-3L/4	495	12	DSR	209	202	202	192	173	154
ECO38-1SN/4	510	12	DSR	236	230	230	220	205	175
ECO38-2SN/4	560	12	DSR	264	253	253	240	220	193
ECO38-3SN/4	590	12	DSR	300	284	284	270	250	216
ECO38-1LN/4	680	12	DSR	330	316	316	300	280	240
ECO38-2LN/4	765	12	DSR	396	378	378	360	330	288
ECO38-3LN/4	905	12	DSR	444	432	432	420	385	336
ECO40-1S/4	1040	12	DER1	525	500	500	480	440	384
ECO40-2S/4	1118	12	DER1	590	563	563	540	490	433
ECO40-3S/4	1171	12	DER1	656	625	625	600	540	480
ECO40-1L/4	1324	12	DER1	722	680	680	660	600	528
ECO40-1.5L/4	1380	12	DER1	805	770	770	744	672	595
ECO40-2L/4	1586	12	DER1	882	840	840	816	756	653
ECO40-VL/4	1693	12	DER1	935	890	890	865	800	693
ECO43-1SN/4	1870	12	DER1	1050	1008	1008	960	870	768
ECO43-2SN/4	2090	12	DER1	1220	1170	1170	1116	1020	893
ECO43-1LN/4	2395	12	DER1	1442	1380	1380	1320	1200	1056
ECO43-2LN/4	2660	12	DER1	1704	1630	1630	1560	1440	1248
ECO43-VLN/4	2950	12	DER1	1824	1765	1765	1700	1540	1360
ECO46-1S/4	2770	12	DER1	1944	1870	1870	1800	1620	1440
ECO46-1.5S/4	3380	12	DER1	2140	2040	2040	1980	1780	1584
ECO46-2S/4	3440	12	DER1	2332	2236	2236	2160	1920	1728
ECO46-1L/4	3870	12	DER1	2722	2608	2608	2520	2280	2016
ECO46-1.5L/4	4260	12	DER1	2980	2860	2860	2760	2460	2208
ECO46-2L/4	4250	12	DER1	3240	3105	3105	3000	2700	2400

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 440v or 220v 60Hz 1800rpm

4 Pole | 60Hz | 3Phase

Voltage: 440 or 220

RPM: 1800

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	8.4	8	7.8	6.5	6.3
ECP3-2S/4	70	12	DSR	10.5	10	9.6	8	7.8
ECP3-1L/4	82	12	DSR	14.3	13.8	13.3	11	10.6
ECP3-2L/4	91.5	12	DSR	17.5	16.9	16.3	13.5	13
ECP3-3L/4	96	12	DSR	19.3	18.8	18	15	14.4
ECP28-S/4	107	12	DSR	19.8	19.1	18.6	17.5	15
ECP28-M/4	122	12	DSR	25	23.8	23	20	18.4
ECP28-2L/4	139	12	DSR	29	28	27.5	25	22
ECP28-VL/4	165	12	DSR	38	36.6	36	32	28.8
ECO32-2S/4	199	12	SR7/2	47	44	42	40	34
ECO32-3S/4	214	12	SR7/2	57	54	51	49	40
ECO32-1L/4	248	12	SR7/2	67	63	60	58	48
ECO32-2L/4	282	12	SR7/2	75	71	68	65	55
ECO32-3L/4	298	12	SR7/2	95	91	86	80	68
ECP34-1S/4	341	12	DSR	114	108	102	92	81
ECP34-2S/4	419	12	DSR	139	132	126	114	101
ECP34-1L/4	445	12	DSR	159	153	145	130	116
ECP34-2L/4	491	12	DSR	186	178	170	150	136
ECP34-3L/4	495	12	DSR	199	189	185	160	148
ECO38-1SN/4	510	12	DSR	240	230	220	205	176
ECO38-2SN/4	560	12	DSR	264	253	240	220	193
ECO38-3SN/4	590	12	DSR	300	284	270	250	216
ECO38-1LN/4	680	12	DSR	330	316	300	280	240
ECO38-2LN/4	765	12	DSR	374	358	340	310	273
ECO38-3LN/4	905	12	DSR	444	433	420	385	336
ECO40-1S/4	1040	12	DER1	491	473	450	410	360
ECO40-2S/4	1118	12	DER1	556	536	510	460	408
ECO40-3S/4	1171	12	DER1	634	609	580	520	464
ECO40-1L/4	1324	12	DER1	689	663	630	570	504
ECO40-1.5L/4	1380	12	DER1	756	734	700	633	560
ECO40-2L/4	1586	12	DER1	844	819	780	720	624
ECO40-VL/4	1693	12	DER1	935	890	865	800	693
ECO43-1SN/4	1870	12	DER1	1049	1008	960	870	768
ECO43-2SN/4	2090	12	DER1	1158	1114	1060	969	848
ECO43-1LN/4	2395	12	DER1	1376	1323	1260	1145	1008
ECO43-2LN/4	2660	12	DER1	1620	1556	1483	1368	1186
ECO43-VLN/4	2950	12	DER1	1824	1765	1700	1540	1360
ECO46-1S/4	2770	12	DER1	1846	1773	1710	1530	1368
ECO46-1.5S/4	3380	12	DER1	2050	1975	1880	1690	1505
ECO46-2S/4	3440	12	DER1	2214	2125	2050	1820	1640
ECO46-1L/4	3870	12	DER1	2581	2479	2390	2150	1913
ECO46-1.5L/4	4260	12	DER1	2855	2751	2620	2330	2096
ECO46-2L/4	4250	12	DER1	3068	2945	2840	2550	2273

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 416-480v or 208-240v 60hz 1800rpm – Broad Voltage

4 Pole | 60Hz | 3Phase

Voltage: 416-480/208-240 | Broad voltage

RPM: 1800

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	7.5	7.3	7	5.5	5.6
ECP3-2S/4	70	12	DSR	9.8	9.4	9	7.5	7.3
ECP3-1L/4	82	12	DSR	12.9	12.4	12	10	9.6
ECP3-2L/4	91.5	12	DSR	15	14.5	14	11.5	11.3
ECP3-3L/4	96	12	DSR	17.1	16.5	16	13	12.5
ECP28-S/4	107	12	DSR	18.5	18	17.5	16.5	14
ECP28-M/4	122	12	DSR	22.5	21.3	21	19	16.8
ECP28-2L/4	139	12	DSR	27.5	26.3	26	23.8	21.3
ECP28-VL/4	165	12	DSR	35	33.8	33	29	26.3
ECO32-2S/4	199	12	SR7/2	45	44	41	39	33
ECO32-3S/4	214	12	SR7/2	56	53	50	45	38
ECO32-1L/4	248	12	SR7/2	65	63	58	56	46
ECO32-2L/4	282	12	SR7/2	75	71	60	63	54
ECO32-3L/4	298	12	SR7/2	90	86	80	72	64
ECP34-1S/4	341	12	DSR	106	101	95	85	76
ECP34-2S/4	419	12	DSR	128	121	115	104	93
ECP34-1L/4	445	12	DSR	148	143	135	120	108
ECP34-2L/4	491	12	DSR	164	158	150	133	120
ECP34-3L/4	495	12	DSR	175	168	165	150	132
ECO38-1SN/4	510	12	DSR	229	220	210	195	168
ECO38-2SN/4	560	12	DSR	253	241	230	210	184
ECO38-3SN/4	590	12	DSR	289	274	260	240	208
ECO38-1LN/4	680	12	DSR	319	305	290	270	233
ECO38-2LN/4	765	12	DSR	358	341	325	300	260
ECO38-3LN/4	905	12	DSR	401	391	380	350	304
ECO40-1S/4	1040	12	DER1	459	441	420	383	336
ECO40-2S/4	1118	12	DER1	524	505	480	435	384
ECO40-3S/4	1171	12	DER1	590	568	540	484	433
ECO40-1L/4	1324	12	DER1	623	599	570	515	456
ECO40-1.5L/4	1380	12	DER1	714	693	660	600	528
ECO40-2L/4	1586	12	DER1	779	756	720	665	576
ECO40-VL/4	1693	12	DER1	898	871	830	760	664
ECO43-1SN/4	1870	12	DER1	961	924	880	800	704
ECO43-2SN/4	2090	12	DER1	1115	1071	1020	935	816
ECO43-1LN/4	2395	12	DER1	1243	1195	1138	1090	910
ECO43-2LN/4	2660	12	DER1	1585	1524	1451	1339	1161
ECO43-VLN/4	2950	12	DER1	1740	1680	1600	1450	1280
ECO46-1S/4	2770	12	DER1	NA	NA	NA	NA	NA
ECO46-1.5S/4	3380	12	DER1	1885	1815	1730	1570	1385
ECO46-2S/4	3440	12	DER1	NA	NA	NA	NA	NA
ECO46-1L/4	3870	12	DER1	NA	NA	NA	NA	NA
ECO46-1.5L/4	4260	12	DER1	2635	2540	2420	2150	1936
ECO46-2L/4	4250	12	DER1	NA	NA	NA	NA	NA

*Available in 416 Volt rating only.

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph 380v 60Hz 1800rpm

4 Pole | 60Hz | 3Phase

Voltage: 380 or 190 | Broad voltage

RPM: 1800

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	7	6.8	6.5	6	5.3
ECP3-2S/4	70	12	DSR	8.8	8.3	8	7.3	6.4
ECP3-1L/4	82	12	DSR	11.8	11.4	11	10	8.8
ECP3-2L/4	91.5	12	DSR	14.5	14	13.5	12.3	10.8
ECP3-3L/4	96	12	DSR	16	15.5	15	13.6	12
ECP28-S/4	107	12	DSR	18	17.5	17	15.5	13.6
ECP28-M/4	122	12	DSR	21.5	20.5	20	18.3	16
ECP28-2L/4	139	12	DSR	26.5	25.5	25	22.8	20
ECP28-VL/4	165	12	DSR	32	31	30	27.4	24
ECO32-2S/4	199	12	SR7/2	39	37	35	33	28
ECO32-3S/4	214	12	SR7/2	48	46	42.5	37	34
ECO32-1L/4	248	12	SR7/2	56	53	50	46	40
ECO32-2L/4	282	12	SR7/2	67	63	60	55	48
ECO32-3L/4	298	12	SR7/2	83	80	75	68	60
ECP34-1S/4	341	12	DSR	103	974	93	84	74
ECP34-2S/4	419	12	DSR	121	116	110	100	88
ECP34-1L/4	445	12	DSR	143	138	130	119	104
ECP34-2L/4	491	12	DSR	164	158	150	136	120
ECP34-3L/4	495	12	DSR	175	168	160	145	128
ECO38-1SN/4	510	12	DSR	196	188	180	164	144
ECO38-2SN/4	560	12	DSR	225	215	205	188	164
ECO38-3SN/4	590	12	DSR	255	243	230	210	184
ECO38-1LN/4	680	12	DSR	275	263	250	228	200
ECO38-2LN/4	765	12	DSR	330	315	300	274	240
ECO38-3LN/4	905	12	DSR	370	360	350	319	280
ECO40-1S/4	1040	12	DER1	448	430	410	374	328
ECO40-2S/4	1118	12	DER1	501	484	460	419	368
ECO40-3S/4	1171	12	DER1	558	535	510	465	408
ECO40-1L/4	1324	12	DER1	613	589	560	510	448
ECO40-1.5L/4	1380	12	DER1	681	660	630	575	504
ECO40-2L/4	1586	12	DER1	746	725	690	630	553
ECO40-VL/4	1693	12	DER1	791	769	733	669	586
ECO43-1SN/4	1870	12	DER1	896	861	820	748	656
ECO43-2SN/4	2090	12	DER1	1038	998	950	866	760
ECO43-1LN/4	2395	12	DER1	1223	1176	1120	1021	896
ECO43-2LN/4	2660	12	DER1	1443	1386	1320	1204	1056
ECO43-VLN/4	2950	12	DER1	1520	1470	1400	1280	1120
ECO46-1S/4	2770	12	DER1	NA	NA	NA	NA	NA
ECO46-1.5S/4	3380	12	DER1	NA	NA	NA	NA	NA
ECO46-2S/4	3440	12	DER1	NA	NA	NA	NA	NA
ECO46-1L/4	3870	12	DER1	NA	NA	NA	NA	NA
ECO46-1.5L/4	4260	12	DER1	NA	NA	NA	NA	NA
ECO46-2L/4	4250	12	DER1	NA	NA	NA	NA	NA

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

Consult factory for transient response performances as they may vary from the published data at this rating.

AVR Controlled Ratings 3ph 380v dedicated 60Hz 1800rpm

4 Pole | 60Hz | 3Phase

Voltage: 380 | Dedicated

RPM: 1800

Insulation: Class H

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	8.4	8	7.8	7.3	6.1
ECP3-2S/4	70	12	DSR	10.5	10	9.6	9	7.5
ECP3-1L/4	82	12	DSR	14.3	13.8	13.3	12	10.6
ECP3-2L/4	91.5	12	DSR	17.5	16.9	16.3	15	13
ECP3-3L/4	96	12	DSR	19.3	18.8	18	16.5	14.4
ECP28-S/4	107	12	DSR	21.6	21	20.4	19	16.3
ECP28-M/4	122	12	DSR	25.8	24.6	24	22	19.1
ECP28-2L/4	139	12	DSR	31.8	30.5	30	27.5	23.8
ECP28-VL/4	165	12	DSR	38.4	36.6	36	32	28.8
ECO32-2S/4	199	12	SR7/2	47	44	42	40	34
ECO32-3S/4	214	12	SR7/2	57	54	51	49	40
ECO32-1L/4	248	12	SR7/2	67	63	60	58	48
ECO32-2L/4	282	12	SR7/2	80	75	72	69	58
ECO32-3L/4	298	12	SR7/2	100	94	90	84	72
ECP34-1S/4	341	12	DSR	114	108	102	92	81
ECP34-2S/4	419	12	DSR	139	132	126	114	101
ECP34-1L/4	445	12	DSR	171	165	156	141	125
ECP34-2L/4	491	12	DSR	196	189	180	163	144
ECP34-3L/4	495	12	DSR	209	201	192	173	154
ECO38-1SN/4	510	12	DSR	240	230	220	205	175
ECO38-2SN/4	560	12	DSR	264	253	240	220	193
ECO38-3SN/4	590	12	DSR	300	284	270	250	216
ECO38-1LN/4	680	12	DSR	330	315	300	280	240
ECO38-2LN/4	765	12	DSR	396	378	360	330	288
ECO38-3LN/4	905	12	DSR	444	433	420	385	336
ECO40-1S/4	1040	12	DER1	525	500	480	440	384
ECO40-2S/4	1118	12	DER1	589	563	540	490	433
ECO40-3S/4	1171	12	DER1	655	625	600	540	480
ECO40-1L/4	1324	12	DER1	721	680	660	600	528
ECO40-1.5L/4	1380	12	DER1	804	770	744	673	595
ECO40-2L/4	1586	12	DER1	883	840	816	756	653
ECO40-VL/4	1693	12	DER1	935	890	865	800	693
ECO43-1SN/4	1870	12	DER1	1049	1008	960	870	768
ECO43-2SN/4	2090	12	DER1	1220	1170	1116	1020	893
ECO43-1LN/4	2395	12	DER1	1441	1380	1320	1200	1056
ECO43-2LN/4	2660	12	DER1	1704	1630	1560	1440	1248
ECO43-VLN/4	2950	12	DER1	1824	1765	1700	1540	1360
ECO46-1S/4	2770	12	DER1	1944	1870	1800	1620	1440
ECO46-1.5S/4	3380	12	DER1	2140	2040	1980	1780	1584
ECO46-2S/4	3440	12	DER1	2332	2236	2160	1920	1728
ECO46-1L/4	3870	12	DER1	2721	2608	2520	2280	2016
ECO46-1.5L/4	4260	12	DER1	2980	2860	2760	2460	2208
ECO46-2L/4	4250	12	DER1	3240	3105	3000	2700	2400

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

These are 'special' build machines. Check factory for delivery lead times.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 3ph dedicated 600v 60Hz 1800rpm

4 Pole | 60Hz | 3Phase

Voltage: 600 | Dedicated Voltage: 690 | Dedicated**

RPM: 1800

Insulation: Class H

** Machine wound for either 600 Dedicated or 690 Dedicated

				kVA @ Temp. Rise / Ambient C/ 0.8 PF				
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**163/27**	**150/40**	**125/40**	**105/40**	**80/40**
ECP3-1S/4	63	12	DSR	8.4	8	7.8	7.3	6.1
ECP3-2S/4	70	12	DSR	10.5	10	9.6	9	7.5
ECP3-1L/4	82	12	DSR	14.3	13.8	13.3	12	10.6
ECP3-2L/4	91.5	12	DSR	17.5	16.9	16.3	15	13
ECP3-3L/4	96	12	DSR	19.3	18.8	18	17	14.4
ECP28-S/4	107	12	DSR	21.6	21	20.4	19	16.3
ECP28-M/4	122	12	DSR	25.8	24.6	24	22	19.1
ECP28-2L/4	139	12	DSR	31.8	30.5	30	27.5	23.8
ECP28-VL/4	165	12	DSR	37	36.6	36	32	28.8
ECO32-2S/4	199	12	SR7/2	47	44	42	40	34
ECO32-3S/4	214	12	SR7/2	57	54	51	49	40
ECO32-1L/4	248	12	SR7/2	67	64	60	58	48
ECO32-2L/4	282	12	SR7/2	80	75	72	69	58
ECO32-3L/4	298	12	SR7/2	100	94	90	84	72
ECP34-1S/4	341	12	DSR	114	108	102	92	81
ECP34-2S/4	419	12	DSR	139	132	126	114	101
ECP34-1L/4	445	12	DSR	171	165	156	141	125
ECP34-2L/4	491	12	DSR	196	189	180	163	144
ECP34-3L/4	495	12	DSR	209	201	192	173	154
ECO38-1SN/4	510	12	DSR	240	230	220	205	175
ECO38-2SN/4	560	12	DSR	264	253	240	220	193
ECO38-3SN/4	590	12	DSR	300	284	270	250	216
ECO38-1LN/4	680	12	DSR	330	315	300	280	240
ECO38-2LN/4	765	12	DSR	396	378	360	330	288
ECO38-3LN/4	905	12	DSR	444	433	420	385	336
ECO40-1S/4	1040	12	DER1	525	500	480	440	384
ECO40-2S/4	1118	12	DER1	589	563	540	490	433
ECO40-3S/4	1171	12	DER1	655	625	600	540	480
ECO40-1L/4	1324	12	DER1	721	680	660	600	528
ECO40-1.5L/4	1380	12	DER1	804	770	744	673	595
ECO40-2L/4	1586	12	DER1	883	840	816	756	653
ECO40-VL/4	1693	12	DER1	935	890	865	800	693
ECO43-1SN/4	1870	12	DER1	1049	1008	960	870	768
ECO43-2SN/4	2090	12	DER1	1220	1170	1116	1020	893
ECO43-1LN/4	2395	12	DER1	1441	1380	1320	1200	1056
ECO43-2LN/4	2660	12	DER1	1704	1630	1560	1440	1248
ECO43-VLN/4	2950	12	DER1	1824	1765	1700	1540	1360
ECO46-1S/4	2770	12	DER1	1944	1870	1800	1620	1440
ECO46-1.5S/4	3380	12	DER1	2140	2040	1980	1780	1584
ECO46-2S/4	3440	12	DER1	2333	2236	2160	1920	1728
ECO46-1L/4	3870	12	DER1	2721	2608	2520	2280	2016
ECO46-1.5L/4	4260	12	DER1	2980	2860	2760	2460	2208
ECO46-2L/4	4250	12	DER1	3240	3105	3000	2700	2400

*ECO43 and ECO46: Refer To Factory before ordering to assure winding is available at 600 Volts.

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

These are 'special' build machines. Check factory for delivery lead times.

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 1Ph Reconnected Winding 60Hz 1800rpm

4 Pole | 60Hz | 1Phase

Voltage: 240/230/220 – 120/115/110 - 277-138 | Reconnected

RPM: 1800

Insulation: Class H

		220/230/240 Volts kW @ 1.0 PF			220/230/240 Volts kVA @ 0.8 PF		270 Volts kW @ 1.0 PF				270 Volts kVA @ 0.8 PF		
MODEL	**AVR**	**150/40**	**125/40**	**105/40**	**125/40**	**105/40**	**150/40**	**125/40**	**105/40**	**Eff%**	**125/40**	**105/40**	**Eff%**
ECP3-1S/4	DSR	4.6	4.5	4.1	4.1	3.8	5.4	5.3	4.9	76.9	4.8	4.4	74.9
ECP3-2S/4	DSR	5.9	5.7	5.3	5.2	5	6.8	6.6	6.2	79.1	6	5.6	77.1
ECP3-1L/4	DSR	7.9	7.7	7	6.9	6.3	9.3	9	8.2	80.7	8	7.3	78.7
ECP3-2L/4	DSR	9.6	9.3	8.6	8.3	8	11.1	10.8	10	81.2	9.6	9	79.2
ECP3-3L/4	DSR	10.5	10.2	9.3	9.2	8.4	12.3	12	11	81.5	10.8	10	79.5
ECP28-S/4	DSR	12.3	12.0	11	11	10	13.8	13.5	12.5	82.7	12.5	12	80.7
ECP28-M/4	DSR	14.5	14	13	12	11	16.3	16	15	83.0	14.5	13.3	81.0
ECP28-2L/4	DSR	17.6	17	15	15	14	20.3	20	18.3	83.7	18	16.5	81.7
ECP28-VL/4	DSR	20.1	19.5	18.1	17	15.8	23.7	23	20	84.2	20.5	18	82.2
ECO32-2S/4	SR7/2	25	24	23	22	20	29	28	27	84.3	25	24	82.3
ECO32-3S/4	SR7/2	29	27	26	25	23	34	32	31	84.8	29	28	82.8
ECO32-1L/4	SR7/2	36	34	33	31	30	42	40	38	86.7	36	35	84.7
ECO32-2L/4	SR7/2	42	40	38	36	34	50	48	46	87.3	43	41	85.3
ECO32-3L/4	SR7/2	52	49	46	45	41	63	60	56	87.3	54	49	85.3
ECP34-1S/4	DSR	59	56	50	50	45	69	65	59	86.7	58	52	84.7
ECP34-2S/4	DSR	70	67	61	60	54	82	78	70	87.8	70	63	85.8
ECP34-1L/4	DSR	81	77	69	69	62	94	90	81	88.9	81	73	86.9
ECP34-2L/4	DSR	88	84	76	75	68	102	98	89	89.9	88	80	87.9
ECP34-3L/4	DSR	94	90	81	80	73	109	105	95	89.9	94	85	87.9
ECO38-1SN/4	DSR	116	112	104	106	99	138	133	124	87	125	116	85.0
ECO38-2SN/4	DSR	127	122	112	117	107	152	145	133	88.2	140	128	86.2
ECO38-3SN/4	DSR	142	135	125	128	118	168	160	148	88.8	150	139	86.8
ECO38-1LN/4	DSR	163	156	145	149	139	194	185	172	89.2	175	163	87.2
ECO38-2LN/4	DSR	186	178	163	170	155	228	218	199	89.8	206	188	87.8
ECO38-3LN/4	DSR	221	216	198	204	187	260	254	232	88.5	240	219	86.5
ECO40-1S/4	DER1	262	252	231	243	215	307	295	270	88.5	274	251	86.5
ECO40-2S/4	DER1	293	281	255	263	239	343	329	299	88.6	309	280	86.6
ECO40-3S/4*	DER1	322	309	278	291	262	379	364	327	88.9	343	309	86.9
ECO40-1L/4	DER1	353	339	309	320	291	416	400	364	88.9	377	343	86.9
ECO40-1.5L/4*	DER1	397	382	345	360	325	469	451	407	89.2	425	384	87.2
ECO40-2L/4	DER1	436	418	387	394	365	516	495	458	89.3	466	432	87.3
ECO40-VL/4*	DER1	463	444	410	418	387	546	524	485	89.4	494	457	87.4

*120/115/110 V not available on these three Models.

All the above machines are 12 lead. The Weights are the same as the 'standard' 3 phase Models.

Zigzag, Delta, and Double Delta single phase connections available.

Consult Factory to choose for your application.

Ratings achieved by fitting optional copper damper cage (ECP3, ECO28 and ECO32 ranges)

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

AVR Controlled Ratings 1Ph Dedicated Winding 60Hz 1800rpm

4 Pole | 60Hz | 1Phase

Voltage: 240/230/220 – 120/115/110 | Dedicated

RPM: 1800

Insulation: Class H

		220/230/240 Volts kW @ 1.0 PF				220/230/240V kVA @ 0.8 PF			
MODEL	**AVR**	**150/40**	**125/40**	**105/40**	**Eff %**	**150/40**	**125/40**	**105/40**	**Eff %**
ECP3-1S/4	DSR	6.1	6	5.6	76.9	5.6	5.5	5.1	74.9
ECP3-2S/4	DSR	7.7	7.5	7.1	79.1	6.7	6.5	6	77.1
ECP3-1L/4	DSR	10.3	10	9.2	80.7	9.3	9	8.3	78.7
ECP3-2L/4	DSR	12.4	12	11.1	81.2	11.2	10.8	10.1	79.2
ECP3-3L/4	DSR	13.9	14	12.5	81.5	12.4	12	11.2	79.5
ECP28-S/4	DSR	15.4	15	13.9	82.7	13.9	13.5	13	80.7
ECP28-M/4	DSR	17.3	17	15.9	83.0	16	16	14	81.0
ECP28-2L/4	DSR	22.3	22	20.4	83.7	19.3	19	17.4	81.7
ECP28-VL/4	DSR	25.7	25	22	84.2	22.6	22	20	82.2
ECO32-2S/4	SR7/2	38	36	35	84.3	34	32	31	82.3
ECO32-3S/4	SR7/2	42	40	38	84.8	38	36	35	82.8
ECO32-1L/4	SR7/2	53	50	48	86.7	48	45	44	84.7
ECO32-2L/4	SR7/2	63	60	58	87.3	57	54	52	85.3
ECO32-3L/4	SR7/2	74	71	66	87.3	66	63	59	85.3
ECP34-1S/4	DSR	82	78	71	86.7	74	70	62	84.7
ECP34-2S/4	DSR	94	90	81	87.8	85	81	72	85.8
ECP34-1L/4	DSR	100	95	85	88.9	89	85	77	86.9
ECP34-2L/4	DSR	104	100	91	89.9	93	90	81	87.9
ECP34-2L/4	DSR	NA	NA	NA	-	NA	NA	NA	-
ECO38-1SN/4	DSR	150	144	134	87	141	135	125	85.0
ECO38-2SN/4	DSR	164	157	144	88.2	158	151	138	86.2
ECO38-3SN/4	DSR	181	173	160	88.8	169	162	150	86.8
ECO38-1LN/4	DSR	209	200	186	89.2	198	189	176	87.2
ECO38-2LN/4	DSR	246	235	215	89.8	233	223	203	87.8
ECO38-3LN/4	DSR	280	274	251	88.5	265	259	237	86.5
ECO40-1S/4	DER1	335	319	292	88.5	311	296	271	86.5
ECO40-2S/4	DER1	370	355	323	88.6	348	334	302	86.6
ECO40-3S/4	DER1	409	393	353	88.9	386	371	334	86.9
ECO40-1L/4	DER1	450	432	393	88.9	424	407	371	86.9
ECO40-1.5L/4	DER1	506	487	440	89.2	477	459	415	87.2
ECO40-2L/4	DER1	557	535	495	89.3	524	503	467	87.3
ECO40-VL/4	DER1	590	566	524	89.4	557	534	494	87.4

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

Consult Factory to choose for your application.

Ratings achieved by fitting optional copper damper cage (ECP3, ECO28 and ECO32 ranges)

Indicated voltage references to series or paralle star connection. Consult factory on voltages available for ECO40, ECO43 and ECO46 as for some machines the series/parallel connection may result in a different voltage output.

Transformer Regulated Alternator Ratings

2 & 4 Pole | 50/60Hz | 1 & 3Phase

Voltage: Various

RPM: 3000/3600 – 1500/1800

Insulation: Class H

4 Pole, 1500 RPM

				3Phase, 50Hz kVA @ 0.8 PF			
				400/230 Volts		380/190 Volts	
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**125/40**	**105/40**	**125/40**	**105/40**
CTP3-1S/4	63	6	-	6.5	6.3	6.5	6.3
CTP3-2S/4	70	6	-	8	7.5	8	7.5
CTP3-1L/4	82	6	-	10	9	10	9
CTP3-2L/4	92	6	-	13	12	13	12
ECSP28-S/4	107	12	AVIR	17	16	17	16
ECSP28-1L/4	122	12	AVIR	20	18.5	20	18.5
ECSP28-2L/4	139	12	AVIR	25	23	25	23
ECSP28-VL/4	165	12	AVIR	30	26	30	26
ECSO32-2S/4	199	12	AVIR	35	33	35	33
ECSO32-3S/4	214	12	AVIR	40	37	40	37
ECSO32-1L/4	248	12	AVIR	50	48	50	48
ECSO32-2L/4	281	12	AVIR	58	57	58	57
ECSO32-3L/4	298	12	AVIR	70	63	70	63

4 Pole, 1800 RPM

				3Phase, 60Hz kVA @ 0.8 PF			
				480/240 V		460/208 V	
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**125/40**	**105/40**	**125/40**	**105/40**
CTP3-1S/4	63	6	-	7.8	7	7.8	7
CTP3-2S/4	70	6	-	9.6	8.5	9.6	8.5
CTP3-1L/4	82	6	-	12	11	12	11
CTP3-2L/4	92	6	-	16	15	16	15
ECSP28-S/4	107	12	AVIR	20.4	19	20.4	19
ECSP28-1L/4	122	12	AVIR	24	22	24	22
ECSP28-2L/4	139	12	AVIR	30	27.5	30	27.5
ECSP28-VL/4	165	12	AVIR	36	32	36	32
ECSO32-2S/4	199	12	AVIR	42	40	42	40
ECSO32-3S/4	214	12	AVIR	48	46	48	46
ECSO32-1L/4	248	12	AVIR	60	58	60	58
ECSO32-2L/4	281	12	AVIR	72	69	72	69
ECSO32-3L/4	298	12	AVIR	84	78	84	78

2 Pole, 3000 RPM 50Hz / 3600rpm 60Hz

				3 Phase, kVA @ 0.8 PF			
				400V 50Hz		480V 60Hz	
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**125/40**	**105/40**	**125/40**	**105/40**
CTP3-1SN/2	51	6	-	6.7	6	8	7.3
CTP3-2SN/2	57	6	-	8.3	7.5	10	9
CTP3-3SN/2	63	6	-	10.4	9.2	12.5	11
CTP3-1LN/2	72	6	-	13.3	12.1	16	14.5
CTP3-2LN/2	78	6	-	15.8	14.2	19	17
ECSP28-1L/2	129	12	AVIR	18.8	16.7	22.5	20
ECSP28-2L/2	136	12	AVIR	22.9	20.8	27.5	25
ECSP28-3L/2	141	12	AVIR	26	25	31.3	30
ECSO31-2SN/2	178	12	AVIR	36	33	44	40
ECSO31-3SN/2	204	12	AVIR	46	42	55	50
ECSO31-1LN/2	216	12	AVIR	55	50	66	60
ECSO31-2LN/2	235	12	AVIR	69	63	83	75
ECSO32-3L/2	298	12	AVIR	70	63	70	63

2 Pole, other voltages available. 2 & 4 Pole kW ratings available to 1000 kW. Refer to Factory.

CTO3 is Transformer, Brushless; ECSO is Transformer, Brushless with AVR control. Industrial or Irrigation.

AVIR regulator is available on option on the ECSO range.

Alternators to fit Lister TS/TR

4 Pole | 50/60Hz | 1 & 3Phase

Voltage: Various

RPM: 1500/1800

Insulation: Class H

Lister Petter (TS & TR) 3Phase

				kVA @ 0.8PF, 125/40 C Rise/Ambient			
				50Hz, 1500RPM	60Hz, 1800RPM		
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**380 – 415 Volts**	**480 Volts**	**440 Volts**	**416 Volts**
ECP28-1VS/4	98	12	DSR	7.8	9.4	8.9	8.1
ECP28-2VS/4	101	12	DSR	11	13.3	12.1	11.4
ECP28-OS/4	104	12	DSR	13.5	16.25	15	13.8
ECP28-S/4	107	12	DSR	17	19.3	18.6	17.5
ECP28-M/4	122	12	DSR	20	24	23	21
ECP28-2L/4	139	12	DSR	25	30	27.5	26
ECP28-VL/4	165	12	DSR	30	36	36	33

Lister Petter (TS & TR) 1Phase

				kVA @ 1.0PF, 125/40 C Rise/Ambient	
				50Hz, 1500RPM	60Hz, 1800RPM
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**110/220 Volts**	**120/240 Volts**
ECP28-1VS/4	98	12	DSR	3.9	4.7
ECP28-2VS/4	101	12	DSR	5.5	6.6
ECP28-OS/4	104	12	DSR	7	8.2
ECP28-S/4	107	12	DSR	11.5	13.5
ECP28-M/4	122	12	DSR	13.5	16
ECP28-2L/4	139	12	DSR	16.5	20
ECP28-VL/4	165	12	DSR	19	23

Special mechanical modification allows the generator to be bolted directly to the engine without an adaptor.

Please note these machines are also available with standard SAE couplings.

4 Pole | 50/60Hz | 1 Phase

Voltage: 220/110; 240/120

RPM: 1500/1800

Insulation: Class H

			kW @ 220/110V, 50Hz, 1.0 pf, 40C amb.			
MODEL	**WEIGHT** (kg)	**LENGTH** (mm)	**125/40**	**105/40**	**80/40**	**Eff %**
LT3-75/4	32	248	3.5	3.3	2.8	75.8
LT3-100/4	38	273	4.5	4.1	3.6	76.5
LT3-110/4	40	283	5.0	4.6	4.0	76.8
LT3-130/4	46	303	6.0	5.5	4.8	77.5
LT3-160/4	55	333	8	8	6.4	78.0

			kW @ 240/120V, 60Hz, 1.0 pf, 40C amb.			
MODEL	**WEIGHT** (kg)	**LENGTH** (mm)	**125/40**	**105/40**	**80/40**	**Eff %**
LT3-75/4	32	248	4.5	4.1	3.6	76.5
LT3-100/4	38	273	6.0	5.5	4.8	77.5
LT3-110/4	40	283	6.5	6.0	5.3	78.0
LT3-130/4	46	303	7.5	6.9	6.0	78.6
LT3-160/4	55	333	10	9	8.0	79.2

Capacitor excited machines specifically for Metal Halide light tower lamps.

For custom voltages or non-standard lamp striking voltages, please refer to Factory.

2 Pole version of above generators available. Please refer to Factory.

4 Pole | 50/60Hz | 1 & 3Phase

Voltage: Various

RPM: 1500/1800

Insulation: Class H

3Phase			kVA 115/200-230/400V 50 Hz, 0.8pf		kVA 138/240-277/480V 60 Hz, 0.8pf	
MODEL	**WEIGHT** (kg)	**LEADS**	**125/40**	**105/40**	**125/40**	**105/40**
NPE 32-A/4	77	12	7.5	7.3	9.0	8.4
NPE 32-B/4	83	12	11.5	10.5	14.0	12.5
NPE 32-C/4	90	12	13.0	12.0	16.0	14.5
NPE 32-D/4	102	12	17.0	15.5	21.0	19.0
NPE 32-E/4	120	12	25.0	23.0	31.0	28.5
NPE 32-F/4	134	12	27.5	25.0	34	31

1 Phase (Dedicated Winding)			kW 115/230V 50 Hz		kW 120/240V 60 Hz	
MODEL	**WEIGHT** (kg)	**LEADS**	**125/40**	**105/40**	**125/40**	**105/40**
NPE 32-A/4	75	4	6.4	6.2	8.4	8
NPE 32-B/4	81	4	8.7	8.3	10.5	10
NPE 32-C/4	88	4	10.8	10.4	13	12.5
NPE 32-D/4	100	4	13.8	13.3	17	16
NPE 32-E/4	118	4	18.5	17.5	22	21
NPE 32-F/4	132	4	22.5	21	26.5	25

1 Phase (Re-connected)			kW 115/230V 50 Hz	kW 120/240V 60 Hz
MODEL	**WEIGHT** (kg)	**LEADS**	**125/40**	**125/40**
NPE 32-A/4	75	12	5	6
NPE 32-B/4	81	12	7.5	9.3
NPE 32-C/4	88	12	8.6	10.6
NPE 32-D/4	100	12	11.3	14
NPE 32-E/4	118	12	16.6	20.6
NPE 32-F/4	132	12	18.3	22.6

Space Efficient- designed for length reduction.

All the generators on this page come 'standard' with the SR7/2 AVR.

2 Pole | 50/60Hz | 1 & 3Phase

Voltage: Various
RPM: 3000/3600
Insulation: Class H

3Phase			kVA 115/200-230/400V 50 Hz, 0.8pf		kVA 138/240-277/480V 60 Hz, 0.8pf	
MODEL	**WEIGHT** (kg)	**LEADS**	**125/40**	**105/40**	**125/40**	**105/40**
NPE 31-A/2	77	12	8.0	7.8	10.0	9.3
NPE 31-B/2	83	12	10.5	9.6	13.0	11.6
NPE 31-C/2	90	12	13.5	12.3	16.5	15.0
NPE 31-D/2	102	12	21.0	19.2	25.2	23.0
NPE 31-E/2	120	12	26.0	23.8	31.5	29.0
NPE 31-F/2	134	12	32.0	28.8	38.4	35.0

1 Phase (Dedicated Winding)			kW 115/230V 50 Hz		kW 120/240V 60 Hz	
MODEL	**WEIGHT** (kg)	**LEADS**	**125/40**	**105/40**	**125/40**	**105/40**
NPE 31-A/2	75	4	5.6	5	6.7	6.4
NPE 31-B/2	81	4	8	7.3	9.2	8.8
NPE 31-C/2	88	4	12.0	11	14.4	13.2
NPE 31-D/2	100	4	14	12.8	16.8	15.4
NPE 31-E/2	118	4	21.0	19	25.2	23
NPE 31-F/2	132	4	25	23	30	27.5

1 Phase (Re-connected)			kW 115/230V 50 H	kW 120/240V 60 Hz
MODEL	**WEIGHT** (kg)	**LEADS**	**125/40**	**125/40**
NPE 31-A/2	75	12	5.3	6.6
NPE 31-B/2	81	12	7	8.6
NPE 31-C/2	88	12	9	11
NPE 31-D/2	100	12	14	16.8
NPE 31-E/2	118	12	17.3	21
NPE 31-F/2	132	12	21.3	25.5

Space Efficient – designed for length reduction.

All the generators on this page come 'standard' with the SR7/2 AVR.

4 Pole | 50/60Hz | 3Phase

Voltage: Various
RPM: 1500/1800
Insulation: Class H

Railroad Duty Alternators

Mecc Alte has been building Railroad Duty alternators for over two decades. Designed and manufactured to meet harsh environmental demands for line haul locomotives and switching applications.

Our rugged insulation system, with our unique, overcoat of Butylh Rubber, provides unparalleled mechanical strength and superior protection against airborn rail dust, oil and grease.

Our TE (Totally Enclosed), pre-engineered generators (some are listed below) are becoming the standard for other harsh environmental applications, which include gantry cranes for Asian Port Authorities and off-shore oil platforms on two continents.

Typical Mechanical and Electrical Specification

Insulation System and mechanical reinforcement:

- Stator treatments can include additional mechanical bracing, additional lacing on the end turns; VPI treatment, Butylh Rubber overcoat on the windings.
- Rotor treatments can include VPI application(s), closer machining tolerances on the rotor shaft with shrink collars to prevent core pack movement.
- Special Lead termination and configurations (long leads, bus bars, etc.) as well as special cable glands, cooling fans, adaptors and mounting reinforcement.

				kVA @ 50Hz Temp. Rise/Amb. C/ 0.8PF			
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**125/40**	**105/40**	**80/40**	**95/50**
TE34-1S/4	309	12	UVR6	50	45	40	42
TE34-2S/4	375	12	UVR6	60	54	48	50
TE34-1L/4	395	12	UVR6	70	63	56	58
TE34-2L/4	429	12	UVR6	80	72	64	67

				kVA @ 60Hz Temp. Rise/Amb. C/ 0.8PF			
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**125/40**	**105/40**	**80/40**	**95/50**
TE34-1S/4	309	12	UVR6	60	54	48	50
TE34-2S/4	375	12	UVR6	72	65	57.5	60
TE34-1L/4	395	12	UVR6	84	76	67	70
TE34-2L/4	429	12	UVR6	96	87	77	80

*Consult Factory for pricing.

Above generators are built to IP55 standards.

Custom Engineered models are available to fit special applications. Consult Factory.

14/20/24 Pole | 400Hz | 3Phase

Voltage: 115/200 – 208
RPM: 3400/2400/2000
Insulation: Class H

Multi-Pole | 400Hz

					kVA @ Temp. Rise / Ambient C	
MODEL	**WEIGHT** (kg)	**LEADS**	**AVR**	**RPM**	**125/40**	**105/40**
HCO3-1S/14	48	12	UVR6/H	3428	5.5	5
HCO3-2S/14	54	12	UVR6/H	3428	7	6.5
HCO3-3S/14	63	12	UVR6/H	3428	9	8.5
HCO3-2L/14	70	12	UVR6/H	3428	10	10
HCO3-3L/14	79	12	UVR6/H	3428	13	12
HCO32-1S/20	186	12	UVR6/H	2400	45	40
HCO32-2S/20	220	12	UVR6/H	2400	50	45
HCO32-2L/20	274	12	UVR6/H	2400	60	55
HCO32-3L/20	299	12	UVR6/H	2400	70	65
HCP34-1S/20	304	12	UVR6/H	2400	75	70
HCP34-2S/20	344	12	UVR6/H	2400	95	85
HCP34-3S/20	379	12	UVR6/H	2400	125	115
HCP34-2L/20	429	12	UVR6/H	2400	150	135
HCP34-1SN/24*	304	12	UVR6/H	2000	60	55
HCP34-2SN/24*	379	12	UVR6/H	2000	90	80
HCP34-2LN/24*	429	12	UVR6/H	2000	125	110
HCO38-1L/24*	-	12	UVR6/H	2000	150	135
HCO38-1L/24*	-	12	UVR6/H	2000	180	165
HCO38-1L/24*	-	12	UVR6/H	2000	200	185

*According BS 2G 219 – EN2292 – ISO 6858 – Mil Stnd 704F

All machines have an auxiliary winding 'standard' with 300% short circuit capability.

UVR6/H AVR has under frequency, over voltage protection, 3ph reference; regulation is +/- 1%

Line Drop Compensator is also available as an option.

Custom projects available for dedicated power nodes.

The following accessories are available upon request for an additional charge:

- Space Heaters
- Temperature detectors (thermistors or PT100) for stator windings and bearings.
- IP45 or IP54 rated enclosure.
- Paralleling CT's for parallel operation.
- Black Butylh Rubber overcoat for superior winding protection in hazardous environments.
- Remote voltage control.

2/3 pitch windings with skewed slots for maximum reduction of harmonic content.

4 layers of polyester in addition to a clear varnish and EG43 overcoat on the main and exciter windings is standard' on 400 Hz machines.

2 Pole | 50/60Hz | 1 & 3Phase

Voltage: Various
RPM: 3000/3600
Insulation: Class H

1 Phase - Reconnected

			50Hz, 1.0 PF			60Hz, 1.0 PF		
			kW @ Temp Rise/Amb			kW @ Temp Rise/Amb		
			110/120 Volts		%EFF	120/240 Volts		%EFF
MODEL	**WEIGHT** (kg)	**AVR**	**125/40**	**105/40**		**125/40**	**105/40**	
ECP3-1S/2	51	DSR	5.5	5	72.6	6.6	5.9	74.2
ECP3-2S/2	57	DSR	7	6.3	73.9	8.4	7.6	75.6
ECP3-3S/2	63	DSR	8	7.2	74.0	9.6	8.6	75.7
ECP3-1L/2	72	DSR	10	9	77.9	12	10.8	79.8
ECP3-2L/2	78	DSR	11.5	10.4	78.8	13.8	12.4	80.7
ECP28-1L/2	129	DSR	15	13	79.5	17.5	16	81.1
ECP28-2L/2	136	DSR	18	16	80.9	21.5	19	82.5
ECP28-3L/2	141	DSR	21	19	81.7	25	23	83.3
ECP28-VL/2	156	DSR	25.5	23	81.9	30.5	27.8	83.5
ECO31-2SN/2	178	SR7/2	29	26	81.4	35	32	82.8
ECO31-3SN/2	204	SR7/2	36	32	82.2	43	39	84.8
ECO31-1LN/2	216	SR7/2	43	39	83.0	52	47	85.5
ECO31-2LN/2	235	SR7/2	54	49	83.1	65	59	85.6
ECP34-1S/2	343	DSR	67	60	85.9	80	72	88.1
ECP34-2S/2	412	DSR	83	75	86.5	100	90	88.4
ECP34-1L/2	455	DSR	104	93	87.0	125	113	89.0
ECP34-2L/2	491	DSR	113	103	87.5	139	125	89.7
ECO37-1SN/2	508	DSR	105	95	87.7	125	112	89.7
ECO37-1LN/2	676	DSR	140	125	88.2	209	141	90.3
ECO37-2LN/2	762	DSR	199	182	88.7	302	156	91.0

3Phase

			50Hz, 0.8 PF			60Hz, 0.8 PF				
			kVA @ Temp Rise/Amb			kVA @ Temp Rise/Amb				
			415/380 Volts		%EFF	480/440 Volts		416/208 Volts		%EFF
MODEL	**WEIGHT** (kg)	**AVR**	**125/40**	**105/40**		**125/40**	**105/40**	**125/40**	**105/40**	
ECP3-1S/2	51	DSR	8.0	7.3	78.5	9.6	8.6	8.3	7.4	79.9
ECP3-2S/2	57	DSR	10.0	9.0	80.5	12.0	10.8	10.4	9.3	82.8
ECP3-3S/2	63	DSR	12.5	11.0	83.0	15.0	13.0	12.9	11.1	84.5
ECP3-1L/2	72	DSR	16.0	14.5	84.5	19.3	16.8	16.5	14.4	86.1
ECP3-2L/2	78	DSR	19.0	17.0	85.8	22.8	20.5	19.6	17.6	87.2
ECP28-1L/2	129	DSR	22	20.0	85.2	26.5	24.0	23	20.0	86.2
ECP28-2L/2	136	DSR	27	25.0	86.4	32.5	30.0	28	26.3	87.9
ECP28-3L/2	141	DSR	31.5	30.0	87.2	38	36.0	33	31.3	89.2
ECP28-VL/2	156	DSR	40	37.0	87.8	48	44.0	45	41.5	89.7
ECO31-2SN/2	178	SR7/2	44	40.0	87.4	53	47.5	45	41.3	89.2
ECO31-3SN/2	204	SR7/2	55	50.0	88.1	66	60.0	58	51.3	89.5
ECO31-1LN/2	216	SR7/2	66	60.0	88.4	80	72.5	69	62.5	90.2
ECO31-2LN/2	235	SR7/2	83	75.0	89.0	99	90.0	85	77.5	90.5
ECP34-1S/2	343	DSR	100	90.0	89.7	120	107.5	105	95.0	91.8
ECP34-2S/2	412	DSR	125	112.5	90.4	150	135.0	130	120.0	92.2
ECP34-1L/2	455	DSR	156	140.0	90.9	188	168.8	160	145.0	92.8
ECP34-2L/2	491	DSR	170	153.8	91.5	208	187.5	175	160.0	93.5
ECO37-1SN/2	508	DSR	158	141.8	91.7	188	169	163	150	94
ECO37-1LN/2	676	DSR	210	188.2	92.2	313	211	200	181	94
ECO37-2LN/2	762	DSR	300	271.3	92.8	360	234	219	200	95

*Refer To Factory for pricing. Larger 1 & 3 phase ratings up to 3MW are available. Please Consult Factory.

2 Pole | 50/60Hz | 1Phase

Voltage: Various
RPM: 3000/3600
Insulation: Class H

eurogen

2 Pole | 1Phase (Capacitor)		kW @ 1.0 PF, 50Hz		kW @ 1.0 PF, 60Hz	
MODEL	**WEIGHT** (kg)	**115/230**	**%EFF**	**120/240**	**%EFF**
S15W-45	8.2	1.2	68.7	1.5	69.7
S15W-60	10.4	1.8	70.2	2.2	71.2
S15W-75	12.2	2.1	71.4	2.5	71.8
S15W-85	13.2	2.4	71.8	2.9	72.2
S15W-102	15.0	2.8	72	3.4	72.3
S16W-75	14.1	2.5	74	3	74.6
S16W-90	15.9	3.5	75	4.2	75.6
S16W-105	17.7	4.1	76	4.9	76.6
S16W-130	20.9	5	77	6	77.6
S16W-150	23.6	5.7	78	6.8	78.6
S20W-95	27.2	6	77.5	7.2	78.2
S20W-110	30.4	7	78.4	8.4	79.2
S20W-130	34.9	8.5	79	10.2	79.8
S16F-150	28.1	5.5	79	6.6	79.6
S16F-180	30.8	6.5	79.5	7.8	80.1
S20FS-130	41.7	8.5	79	10.5	79.4
S20FS-160	48.5	10.0	79.2	12.0	79.6
S20F-200	56.2	12.0	80.3	14.4	80.8
S20F-230	59.9	13.0	82.1	15.5	82.7

Above machines are brushless with capacitior control and optional AVR.

2 Pole | 1Phase (AVR)		kW @ 1.0 PF, 50Hz		kW @ 1.0 PF, 60Hz	
MODEL	**WEIGHT** (kg)	**115/230**	**%EFF**	**120/240**	**%EFF**
ES16F-130	29.0	4.5	79.4	5.5	80
ES16F-160	31.8	5.5	79.8	6.8	80.5
ES20FS-130	43.1	8.0	79.4	9.6	79.8
ES20FS-160	49.9	9.5	79.5	11.4	80
ES20FS-200	58.1	11.0	80.7	13.2	81.2

Above machines are brush type with AVR control.

2 Pole | 50/60Hz | 3Phase

Voltage: Various
RPM: 3000/3600
Insulation: Class H

eurogen

2 Pole | 3Phase (Transformer)		kVA @ 0.8 PF, 50Hz		kVA @ 0.8 PF, 60Hz	
MODEL	**WEIGHT** (kg)	**230/400**	**%EFF**	**277/480**	**%EFF**
T16F-130	30.5	6.0	79.8	7.2	80.3
T16F-160	34.5	7.5	82.0	9.0	82.5
T20FS-130	44.7	10.0	81.5	12.0	83.0
T20FS-160	51.7	12.5	82.0	15.0	83.5
T20F-200	59.5	15.0	82.6	18.0	83.8
BTP3-1L	69.0	16.0	83.0	19.2	84.5
BTP3-2L	76.0	20.0	84.0	24.0	86.4

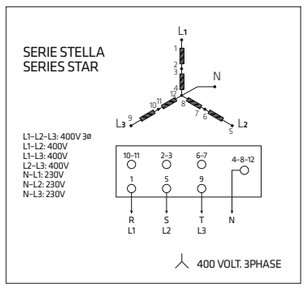
Above machines are brush type with transformer control.

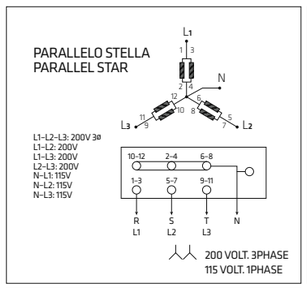
2 Pole | 3Phase (AVR)		kVA @ 0.8 PF, 50Hz		kVA @ 0.8 PF, 60Hz	
MODEL	**WEIGHT** (kg)	**230/400**	**%EFF**	**277/480**	**%EFF**
ET16F-130	30.0	5.5	80.2	6.6	80.6
ET16F-160	34.0	6.5	82.3	7.8	82.5
ET20FS-130	44.2	9.0	81.9	11.0	83.6
ET20FS-160	51.2	11.5	82.4	14.0	83.9
ET20F-200	59.0	13.5	82.9	16.5	84.1

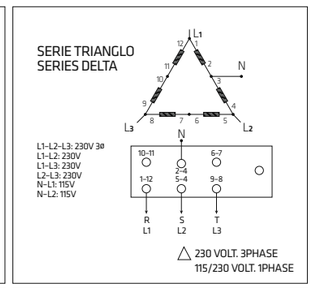
Above machines are brush type with AVR control.

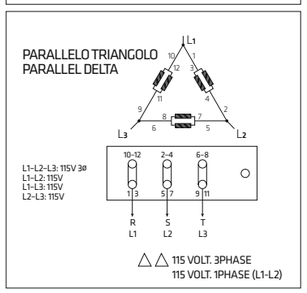
50Hz Connections

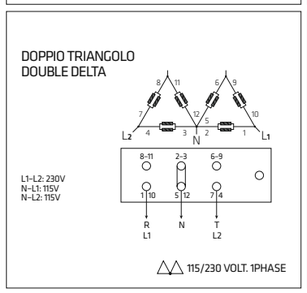
The following are the most common connection arrangements utilized with Mecc Alte generators. Always verify that the connections of all the leads from the main stator are consistent with the nameplate voltage required. Connection diagrams are supplied with every generator and should be used as the primary source of information. Please consult the factory for any questions regarding these connections.

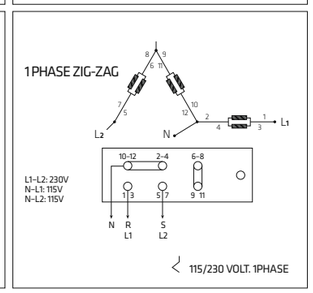








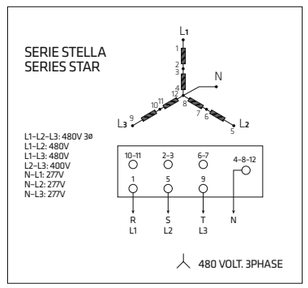


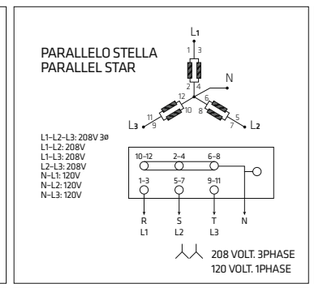


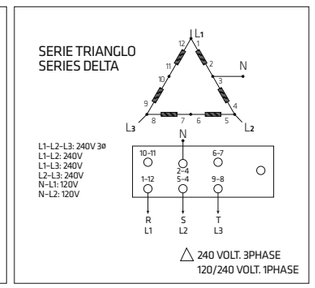
50Hz		Series 3, 28, 31, 32, 34, 38, 40 (1S, 2S, 1L, 2L)				Series 40 (3S, 1.5L, VL), 43, 46			
Series Star	L-L	380	400	415	440	760	800	830	880
	L-N	220	230	240	254	440	460	480	508
Parallel Star	L-L	190	200	208	220	380	400	415	440
	L-N	110	115	120	127	219	231	240	254
Series Delta	L-L	220	230	240	254	440	460	480	508
	L-N	110	115	120	127	220	230	240	254
Parallel Delta	L-L	110	115	120	127	220	230	240	254
Zig-Zag	L-L	330	346	360	380	660	690	720	760
	L-N	191	200	208	220	380	400	415	440
Single Phase Parallel Zig-Zag	L-L	220	230	240	254	440	460	480	508
	L-N	110	115	120	127	220	230	240	254
Single Phase Double Delta	L-L	220	230	240	254	440	460	480	508
	L-N	110	115	120	127	220	230	240	254

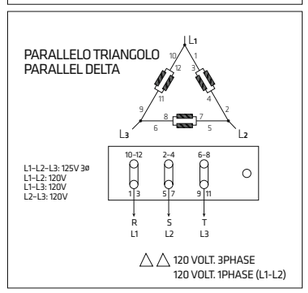
60Hz Connections

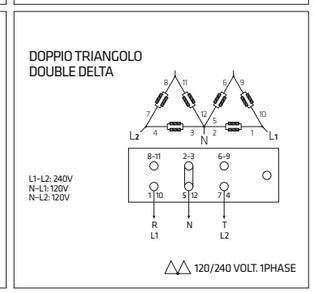
The following are the most common connection arrangements utilized with Mecc Alte generators. Always verify that the connections of all the leads from the main stator are consistent with the nameplate voltage required. Connection diagrams are supplied with every generator and should be used as the primary source of information. Please consult the factory for any questions regarding these connections.

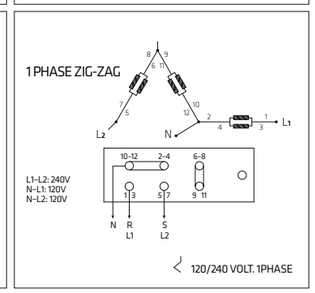












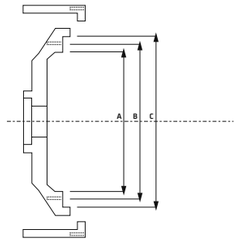
60Hz		Series 3, 28, 31, 32, 34, 38, 40 (1S, 2S, 1L, 2L)				Series 40 (3S, 1.5L, VL), 43, 46			
Series Star	L-L	415	440	460	480	830	880	920	960
	L-N	240	254	266	277	440	460	480	554
Parallel Star	L-L	208	220	230	240	415	440	460	480
	L-N	120	127	133	139	240	254	266	277
Series Delta	L-L	240	254	266	277	440	460	480	554
	L-N	120	127	133	139	220	230	240	277
Parallel Delta	L-L	120	127	133	139	220	230	240	277
Zig-Zag	L-L	359	380	400	415	720	760	800	830
	L-N	207	220	230	240	415	440	460	480
Single Phase Parallel Zig-Zag	L-L	240	254	266	277	440	460	480	554
	L-N	120	127	133	139	220	230	240	277
Single Phase Double Delta	L-L	240	254	266	277	440	460	480	554
	L-N	120	127	133	139	220	230	240	277

SAE Flywheel Housing Dimensions

Mounting Arrangements.

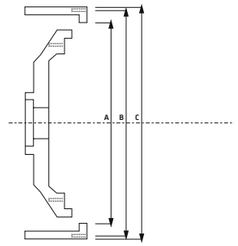
SAE Flywheel Housing Dimensions

SAE No.	A	B	C	Holes	Size
00	31	33.5	34.75	16	1/2-13
0	25.5	26.75	28	16	1/2-13
1/2	23	24 3/8	25.5	12	1/2-13
1	20 1/8	20 7/8	21.75	12	7/16-14
2	17 5/8	18 3/8	19.25	12	3/8-16
3	16 1/8	16 7/8	17.75	12	3/8-16
4	14.25	15	15 7/8	12	3/8-16
5	12 3/8	13 1/8	14	8	3/8-16
6	10.5	11.25	12 1/8	8	3/8-16



SAE Flywheel Dimensions

Flywheel	A	B	C	XG	Holes	Size
21	23	25.25	26.5	0	12	5/8-11
18	19 5/8	21 3/8	22.5	5/8	6	5/8-11
16	18 1/8	19 1/4	20 3/8	5/8	8	1/2-13
14	16 1/8	17.25	18 3/8	1	8	1/2-13
11 1/2	12.375	13.125	13 7/8	1 9/16	8	3/8-16
10	10 7/8	11 5/8	12 3/8	2 1/8	8	3/8-16
8	8 7/8	9 5/8	10 3/8	2 7/16	6	3/8-16
7 1/2	8 1/8	8.75	9 1/2	1 3/16	8	5/16-18
6 1/2	7.25	7 7/8	8 1/2	1 3/16	6	5/16-18
17.75 D	--	15.5	17.75	.72	8	5/8-11
15.50 D	--	13 7/8	15.50	.72	8	5/8-11
12.75 D	--	11	12.75	0	4	1/2-13



Available Mounting Arrangements

Adaptor	Coupling	ECO3	ECO28	ECO32	ECP34	ECO38	ECO40	ECO43	ECO46	NPE 32
6	6.5	•								
	7.5	•								
5	6.5	•	•	•						•
	7.5	•	•	•						•
	8	•	•	•						•
4	6.5	•	•	•						•
	7.5	•	•	•						•
	8	•	•	•						•
	10	•	•	•						•
	11.5	•	•	•						•
3	8	•	•	•						•
	10	•	•	•	•					•
	11.5	•	•	•	•	•				•
2	10		•	•	•	•				
	11.5		•	•	•	•				
1	11.5			•	•	•				
	14				•	•	•			
	17.75 D			•	•	•	•			
1/2	14					•	•			
	18					•	•	•		
	17.75 D					•	•	•		
0	14						•	•	•	
	18						•	•	•	
00	18						•	•	•	
	21							•	•	
	24									

Altitude Derations/Environmental

Temperature and Altitude

Temperature and altitude – individually or combined, have an effect on the generator power available. Temperature may be considered as both the air inlet to the generator and also the ambient air around the generator. When the ambient air or air entering the generator exceeds 40°C, or 104° F, it becomes necessary to derate the output of the generator. The chart below gives the recommended amount to adjust for the higher temperatures.

Higher altitudes also require a derate, specifically when it exceeds 3300 ft., or 1000 Meters. Again, please refer to the Altitude Deration Chart below to determine the necessary derate.

Environmental Concerns

Generators are often exposed to harmful airborne pollutants, like sand and saltwater which may require some form of protection to reduce or eliminate these harmful agents. Common elements like dirt, gravel or rock dust can create abrasive and potentially damaging effects on the windings of the generator. While the addition of filters, baffles, or housings will certainly help extend the life of the protective insulation, it may be equally effective to overcoat the windings at point of manufacture. It is also extremely important to recognize that filters and other devices can affect the airflow through the generator and create additional heat in the windings. It is also important to understand that the use of filters requires a strict maintenance regime.

Mecc Alte has a variety of insulation treatments which can add years of life to your generator, and ensure that the windings are protected in these harmful environmental applications. Please refer to our separate Technical guide: Insulation Protection Systems for further guidance.

Please consult your Mecc Alte Representative for application reviews and recommendations.

Humidity and Moisture

Another common enemy of the insulation system is high humidity, salt air and moisture. While the windings are certainly protected against these conditions, space heaters can be added insurance to promote long life and trouble free operation. The location of the unit and operating conditions with proper ventilation are both important considerations when determining what protection is required. Once again, please consult your Mecc Alte Representative for assistance in selecting proper protection and modifications.

Altitude & Ambient Temperature Deration Coefficients

	Ambient Temperature (°C)					
Altitude (meters)	**25**	**40**	**45**	**50**	**55**	**60**
< 1000	1.07	1	.96	.93	.91	.89
1000 – 1500	1.01	.96	.92	.89	.87	.84
1500 – 2000	.96	.91	.87	.84	.83	.79
2000 – 3000	.90	.85	.81	.78	.76	.73

Notes: