



**Guida Tecnica:**  
**Potenze**

**Technical Guide:**  
**Ratings Book**





# Contents

Ratings Definitions.....	5
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## ECO & ECP Brushless Alternators with AVR 50 or 60Hz 1Phase or 3Phase **4 Pole Industrial** | ECO & ECP /4

<b>4 Pole 50Hz Ratings</b>	
AVR Controlled Ratings 3ph 400V 50Hz 1500rpm.....	6
AVR Controlled Ratings 3ph 380V 50Hz 1500rpm.....	7
AVR Controlled Ratings 3ph 440V 50Hz 1500rpm.....	8
AVR Controlled Ratings 3ph 380-415V 50Hz 1500rpm - Broad Voltage.....	9
AVR Controlled Ratings 1ph Reconnected Winding 220V 50Hz 1500rpm.....	10
AVR Controlled Ratings 1ph Dedicated Winding 220V 50Hz 1500rpm.....	11
<b>4 Pole 60Hz Ratings</b>	
AVR Controlled Ratings 3ph 480V 60Hz 1800rpm.....	12
AVR Controlled Ratings 3ph 440V 60Hz 1800rpm.....	13
AVR Controlled Ratings 3ph 416-480V 60Hz 1800rpm - Broad Voltage.....	14
AVR Controlled Ratings 3ph 380V 60Hz 1800rpm.....	15
AVR Controlled Ratings 3ph Dedicated 380V 60Hz 1800rpm.....	16
AVR Controlled Ratings 3ph Dedicated 600V 60Hz 1800rpm.....	17
AVR Controlled Ratings 1ph Reconnected Winding 240V 60Hz 1800rpm.....	18
AVR Controlled Ratings 1ph Dedicated Winding 240V 60Hz 1800rpm.....	19



## ECISO & ECSP Alternators with Transformer Control 50 or 60Hz 3Phase **Transformer Controlled** | ECISO & ECSP

Transformer Regulated Alternator Ratings – 2 and 4 pole.....	20
--	----



## ECP Lister T Connection Brushless Alternators with AVR 50 or 60Hz 1Phase or 3Phase **Lister Petter T Range** | ECP28

Alternators to fit Lister TS/TR.....	21
--------------------------------------	----



## LT3N Brushless Alternators with Capacitor 50 or 60Hz 1Phase **Lighting Tower** | LT3N

LT3N Lighting Tower Style 2 and 4 pole.....	22
---	----



## NPE Brushless Alternators with AVR 50 or 60Hz 1Phase or 3Phase **Space Saver** | NPE

NPE Alternator Range 4 Pole.....	23
NPE Alternator Range 2 Pole.....	24

# Contents (Continued)



TE34 IP54 Brushless Alternators with AVR 50 or 60Hz  
**Totally Enclosed** | TE34

Totally Enclosed Alternators ..... 25



400Hz Brushless Alternators with AVR 50 or 60Hz 1Phase or 3Phase

**400Hz** | HC

HC Alternator 14/20/24 Pole 400Hz ..... 26



ECO & ECP Brushless Alternators with AVR 50 or 60Hz 1Phase or 3Phase

**2 Pole Industrial** | ECO & ECP /2

2 Pole Industrial Ratings ..... 27



S15, S16 & S20 Brushless Alternators with Capacitor and Optional AVR or Brushed with AVR, 50 or 60Hz

**2 Pole Portable 1Ph** | S15, S16, S20

2 Pole Portable Ratings Single Phase ..... 28



T16 & T20 Brushed Alternators with Transformer or Brushed with AVR, 50 or 60Hz

**2 Pole Portable 3Ph** | T16, T20

2 Pole Portable Ratings Three Phase ..... 29

## Additional Information

Wiring Connection Diagram ..... 30

SAE Coupling and Mounting Guide ..... 32

Environmental Considerations ..... 33



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:

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## 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.

# 4 Pole | 50Hz | 3Phase

Voltage: 400 | Standard Winding - 12 Lead

RPM: 1500

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF					
				163/27	150/40	125/27	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	7	6.8	6.8	<b>6.5</b>	6	5.2
ECP3-2S/4	65	12	DSR	8.8	8.3	8.3	<b>8</b>	7.5	6.4
ECP3-1L/4	79	12	DSR	11.8	11.4	11.4	<b>11</b>	10	8.8
ECP3-2L/4	87	12	DSR	14.5	14	14	<b>13.5</b>	12.5	10.8
ECP3-3L/4	93	12	DSR	16	15.5	15.5	<b>15</b>	14	12
ECP28-1VS/4	79	12	DSR	8.4	8	8	<b>7.8</b>	7	6.2
ECP28-2VS/4	86	12	DSR	11.7	11.3	11.3	<b>11</b>	10	8.8
ECP28-0S/4	96	12	DSR	14.6	14	14	<b>13.5</b>	12.5	10.8
ECP28-S/4	104	12	DSR	18	17.5	17.5	<b>17</b>	16	13.6
ECP28-M/4	115	12	DSR	21.5	20.5	20.5	<b>20</b>	18.5	16
ECP28-2L/4	136	12	DSR	26.5	25.5	25.5	<b>25</b>	23	20
ECP28-VL/4	162	12	DSR	32.5	30.5	30.5	<b>30</b>	26	24
ECP32-2S/4	194	12	DSR	39	36.7	36.7	<b>35</b>	33	28
ECP32-3S/4	209	12	DSR	48	46	46	<b>42.5</b>	39	34
ECP32-1L/4	243	12	DSR	56	52.5	52.5	<b>50</b>	48	40
ECP32-2L/4	277	12	DSR	71	65.5	65.5	<b>63</b>	60	50
ECP32-3L/4	293	12	DSR	83	78	78	<b>75</b>	67	60
ECP34-1S/4	331	12	DSR	95	90	90	<b>85</b>	77	68
ECP34-2S/4	409	12	DSR	116	110	110	<b>105</b>	95	84
ECP34-1L/4	467	12	DSR	148	143	143	<b>135</b>	121	108
ECP34-2L/4	481	12	DSR	164	158	158	<b>150</b>	136	120
ECP34-3L/4	485	12	DSR	175	169	169	<b>160</b>	145	128
ECO38-1SN/4	510	12	DSR	196	188	188	<b>180</b>	170	144
ECO38-2SN/4	560	12	DSR	220	211	211	<b>200</b>	185	160
ECO38-3SN/4	590	12	DSR	250	237	237	<b>225</b>	207	180
ECO38-1LN/4	680	12	DSR	275	264	264	<b>250</b>	230	200
ECO38-2LN/4	765	12	DSR	330	315	315	<b>300</b>	275	240
ECO38-3LN/4	905	12	DSR	370	360	360	<b>350</b>	320	280
ECO40-1S/4	1040	12	DER1	437	417	417	<b>400</b>	370	320
ECO40-2S/4	1118	12	DER1	491	468	468	<b>450</b>	410	360
ECO40-3S/4	1171	12	DER1	546	521	521	<b>500</b>	450	400
ECO40-1L/4	1324	12	DER1	601	567	567	<b>550</b>	500	440
ECO40-1.5L/4	1380	12	DER1	670	640	640	<b>620</b>	560	496
ECO40-2L/4	1586	12	DER1	735	700	700	<b>680</b>	630	544
ECO40-VL/4	1693	12	DER1	810	770	770	<b>750</b>	690	600
ECO43-1SN/4	1870	12	DER1	874	840	840	<b>800</b>	730	640
ECO43-2SN/4	2090	12	DER1	1016	975	975	<b>930</b>	850	744
ECO43-1LN/4	2395	12	DER1	1201	1150	1150	<b>1100</b>	1000	880
ECO43-2LN/4	2660	12	DER1	1420	1358	1358	<b>1300</b>	1200	1040
ECO43-VL/4	2950	12	DER1	1520	1470	1470	<b>1400</b>	1280	1120
ECO46-1S/4	3010	12	DER1	1620	1552	1552	<b>1500</b>	1350	1200
ECO46-1.5S/4	3380	12	DER1	1780	1700	1700	<b>1650</b>	1480	1320
ECO46-2S/4	3565	12	DER1	1944	1863	1863	<b>1800</b>	1600	1440
ECO46-1L/4	3810	12	DER1	2268	2173	2173	<b>2100</b>	1900	1680
ECO46-1.5L/4	4260	12	DER1	2480	2380	2380	<b>2300</b>	2050	1840
ECO46-2L/4	4380	12	DER1	2700	2588	2588	<b>2500</b>	2250	2000

115 ΔΔΔ / 200 ΔΔΔ / 230 ΔΔΔ / 400 ΔΔΔ Volts

230 ΔΔΔ / 400 ΔΔΔ / 800 ΔΔΔ Volts

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

# 4 Pole | 50Hz | 3Phase

Voltage: 380 | Standard Winding - 12 Lead

RPM: 1500

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	7	6.8	<b>6.5</b>	6	5.2
ECP3-2S/4	65	12	DSR	8.8	8.3	<b>8</b>	7.5	6.4
ECP3-1L/4	79	12	DSR	11.8	11.4	<b>11</b>	10	8.8
ECP3-2L/4	87	12	DSR	14.5	14	<b>13.5</b>	12.5	10.8
ECP3-3L/4	93	12	DSR	16	15.5	<b>15</b>	14	12
ECP28-1VS/4	79	12	DSR	8.4	8	<b>7.8</b>	7	6.2
ECP28-2VS/4	86	12	DSR	11.7	11.3	<b>11</b>	10	8.8
ECP28-0S/4	96	12	DSR	14.6	14	<b>13.5</b>	12.5	10.8
ECP28-S/4	104	12	DSR	18	17.5	<b>17</b>	16	13.6
ECP28-M/4	115	12	DSR	21.5	20.5	<b>20</b>	18.5	16
ECP28-2L/4	136	12	DSR	26.5	25.5	<b>25</b>	23	20
ECP28-VL/4	162	12	DSR	32.5	30.5	<b>30</b>	26	24
ECP32-2S/4	194	12	DSR	39	36.7	<b>35</b>	33	28
ECP32-3S/4	209	12	DSR	48	46	<b>42.5</b>	39	34
ECP32-1L/4	243	12	DSR	56	52.5	<b>50</b>	48	40
ECP32-2L/4	272	12	DSR	71	65.5	<b>63</b>	60	50
ECP32-3L/4	293	12	DSR	83	78	<b>75</b>	67	60
ECP34-1S/4	331	12	DSR	95	90	<b>85</b>	77	68
ECP34-2S/4	409	12	DSR	116	110	<b>105</b>	95	84
ECP34-1L/4	467	12	DSR	148	143	<b>135</b>	121	108
ECP34-2L/4	481	12	DSR	164	158	<b>150</b>	136	120
ECP34-3L/4	485	12	DSR	170	164	<b>155</b>	140	124
ECO38-1SN/4	510	12	DSR	196	188	<b>180</b>	170	144
ECO38-2SN/4	560	12	DSR	220	211	<b>200</b>	185	160
ECO38-3SN/4	590	12	DSR	250	237	<b>225</b>	207	180
ECO38-1LN/4	680	12	DSR	275	264	<b>250</b>	230	200
ECO38-2LN/4	765	12	DSR	330	315	<b>300</b>	275	240
ECO38-3LN/4	905	12	DSR	370	360	<b>350</b>	320	280
ECO40-1S/4	1040	12	DER1	437	417	<b>400</b>	370	320
ECO40-2S/4	1118	12	DER1	491	468	<b>450</b>	410	360
ECO40-3S/4	1171	12	DER1	546	521	<b>500</b>	450	400
ECO40-1L/4	1324	12	DER1	601	567	<b>550</b>	500	440
ECO40-1.5L/4	1380	12	DER1	670	640	<b>620</b>	560	496
ECO40-2L/4	1586	12	DER1	735	700	<b>680</b>	630	544
ECO40-VL/4	1693	12	DER1	810	770	<b>750</b>	690	600
ECO43-1SN/4	1870	12	DER1	874	840	<b>800</b>	730	640
ECO43-2SN/4	2090	12	DER1	1016	975	<b>930</b>	850	744
ECO43-1LN/4	2395	12	DER1	1201	1150	<b>1100</b>	1000	880
ECO43-2LN/4	2660	12	DER1	1420	1358	<b>1300</b>	1200	1040
ECO43-VL/4	2950	12	DER1	1520	1470	<b>1400</b>	1280	1120
ECO46-1S/4	3010	12	DER1	1620	1552	<b>1500</b>	1350	1200
ECO46-1.5S/4	3380	12	DER1	1780	1700	<b>1650</b>	1480	1320
ECO46-2S/4	3565	12	DER1	1944	1863	<b>1800</b>	1600	1440
ECO46-1L/4	3810	12	DER1	2268	2173	<b>2100</b>	1900	1680
ECO46-1.5L/4	4260	12	DER1	2480	2380	<b>2300</b>	2050	1840
ECO46-2L/4	4380	12	DER1	2700	2588	<b>2500</b>	2250	2000

110 Δ Δ / 190 Δ Δ / 220 Δ / 380 Δ

220 Δ Δ / 380 Δ Δ / 440 Δ / 760 Δ

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

# 4 Pole | 50Hz | 3Phase

Voltage: 440 | Standard Winding - 12 Lead

RPM: 1500

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	5.9	5.6	<b>5.5</b>	5	4.4
ECP3-2S/4	65	12	DSR	7.4	7	<b>6.8</b>	6.4	5.4
ECP3-1L/4	79	12	DSR	9.6	9.4	<b>9</b>	8	7.2
ECP3-2L/4	87	12	DSR	11.8	11.4	<b>11</b>	10	8.8
ECP3-3L/4	93	12	DSR	12.8	12.4	<b>12</b>	10.5	9.6
ECP28-1VS/4	79	12	DSR	NA	NA	<b>NA</b>	NA	NA
ECP28-2VS/4	86	12	DSR	NA	NA	<b>NA</b>	NA	NA
ECP28-0S/4	96	12	DSR	NA	NA	<b>NA</b>	NA	NA
ECP28-S/4	104	12	DSR	16.4	16	<b>15.5</b>	14.5	12.4
ECP28-M/4	115	12	DSR	19.4	18.5	<b>18</b>	17	14.4
ECP28-2L/4	136	12	DSR	NA	NA	<b>NA</b>	NA	NA
ECP28-VL/4	162	12	DSR	NA	NA	<b>NA</b>	NA	NA
ECP32-2S/4	194	12	DSR	31	29.5	<b>28</b>	26	22.5
ECP32-3S/4	209	12	DSR	38.5	36.5	<b>34</b>	31	27.5
ECP32-1L/4	243	12	DSR	45	42	<b>40</b>	38	32
ECP32-2L/4	277	12	DSR	59	54	<b>52</b>	47	42
ECP32-3L/4	293	12	DSR	78	73	<b>70</b>	62	56
ECP34-1S/4	331	12	DSR	78	75	<b>70</b>	63	56
ECP34-2S/4	409	12	DSR	94	90	<b>85</b>	77	68
ECP34-1L/4	467	12	DSR	124	120	<b>114</b>	103	91
ECP34-2L/4	481	12	DSR	136	131	<b>125</b>	113	100
ECP34-3L/4	485	12	DSR	164	158	<b>150</b>	135	120
ECO38-1SN/4	510	12	DSR	180	173	<b>165</b>	155	132
ECO38-2SN/4	560	12	DSR	209	200	<b>190</b>	175	152
ECO38-3SN/4	590	12	DSR	234	221	<b>210</b>	190	168
ECO38-1LN/4	680	12	DSR	253	243	<b>230</b>	215	184
ECO38-2LN/4	765	12	DSR	319	305	<b>290</b>	265	232
ECO38-3LN/4	905	12	DSR	360	350	<b>340</b>	310	272
ECO40-1S/4	1040	12	DER1	404	386	<b>370</b>	342	296
ECO40-2S/4	1118	12	DER1	459	437	<b>420</b>	385	336
ECO40-3S/4	1171	12	DER1	503	479	<b>460</b>	414	368
ECO40-1L/4	1324	12	DER1	546	515	<b>500</b>	454	400
ECO40-1.5L/4	1380	12	DER1	616	588	<b>570</b>	515	456
ECO40-2L/4	1586	12	DER1	681	648	<b>630</b>	585	504
ECO40-VL/4	1693	12	DER1	NA	NA	<b>NA</b>	NA	NA
ECO43-1SN/4	1870	12	DER1	754	725	<b>690</b>	610	552
ECO43-2SN/4	2090	12	DER1	918	881	<b>840</b>	770	672
ECO43-1LN/4	2395	12	DER1	1092	1045	<b>1000</b>	910	800
ECO43-2LN/4	2660	12	DER1	1349	1290	<b>1235</b>	1140	988
ECO43-VL/4	2950	12	DER1	NA	NA	<b>NA</b>	NA	NA
ECO46-1S/4	2770	12	DER1	1400	1340	<b>1300</b>	1170	1040
ECO46-1.5S/4	3380	12	DER1	1620	1545	<b>1500</b>	1360	1200
ECO46-2S/4	3440	12	DER1	1720	1650	<b>1600</b>	1440	1280
ECO46-1L/4	3870	12	DER1	1990	1900	<b>1850</b>	1660	1480
ECO46-1.5L/4	4260	12	DER1	2375	2275	<b>2200</b>	1950	1760
ECO46-2L/4	4380	12	DER1	2450	2350	<b>2280</b>	2050	1820

127 Δ Δ / 220 Δ Δ / 254 Δ Δ / 440 Δ Δ Volts

254 Δ Δ / 440 Δ Δ / 508 Δ Δ / 880 Δ Δ Volts

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.



# 4 Pole | 50Hz | 3Phase

Voltage: 380-415 | Standard Winding - Broad Voltage - 12 Lead

RPM: 1500

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	7	6.8	<b>6.5</b>	6	5.2
ECP3-2S/4	65	12	DSR	8.8	8.3	<b>8</b>	7.5	6.4
ECP3-1L/4	79	12	DSR	11.8	11.4	<b>11</b>	10	8.8
ECP3-2L/4	87	12	DSR	14.5	14	<b>13.5</b>	12.5	10.8
ECP3-3L/4	93	12	DSR	16	15.5	<b>15</b>	14	12
ECP28-1VS/4	79	12	DSR	8.4	8	<b>7.8</b>	7	6.2
ECP28-2VS/4	86	12	DSR	11.7	11.3	<b>11</b>	10	8.8
ECP28-0S/4	96	12	DSR	14.6	14	<b>13.5</b>	12.5	10.8
ECP28-S/4	104	12	DSR	18	17.5	<b>17</b>	16	13.6
ECP28-M/4	115	12	DSR	21.5	20.5	<b>20</b>	18.5	16
ECP28-2L/4	136	12	DSR	26.5	25.5	<b>25</b>	23	20
ECP28-VL/4	162	12	DSR	32.5	30.5	<b>30</b>	26	24
ECP32-2S/4	194	12	DSR	39	36.7	<b>35</b>	33	28
ECP32-3S/4	209	12	DSR	48	46	<b>42.5</b>	39	34
ECP32-1L/4	243	12	DSR	56	52.5	<b>50</b>	48	40
ECP32-2L/4	277	12	DSR	71	65.5	<b>63</b>	60	50
ECP32-3L/4	293	12	DSR	83	78	<b>75</b>	67	60
ECP34-1S/4	331	12	DSR	95	90	<b>85</b>	77	68
ECP34-2S/4	409	12	DSR	116	110	<b>105</b>	95	84
ECP34-1L/4	467	12	DSR	148	143	<b>135</b>	121	108
ECP34-2L/4	481	12	DSR	164	158	<b>150</b>	136	120
ECP34-3L/4	485	12	DSR	170	164	<b>155</b>	140	124
ECO38-1SN/4	510	12	DSR	196	188	<b>180</b>	170	144
ECO38-2SN/4	560	12	DSR	220	211	<b>200</b>	185	160
ECO38-3SN/4	590	12	DSR	250	237	<b>225</b>	207	180
ECO38-1LN/4	680	12	DSR	275	264	<b>250</b>	230	200
ECO38-2LN/4	765	12	DSR	330	315	<b>300</b>	275	240
ECO38-3LN/4	905	12	DSR	370	360	<b>350</b>	320	280
ECO40-1S/4	1040	12	DER1	437	417	<b>400</b>	370	320
ECO40-2S/4	1118	12	DER1	491	468	<b>450</b>	410	360
ECO40-3S/4	1171	12	DER1	546	521	<b>500</b>	450	400
ECO40-1L/4	1324	12	DER1	590	557	<b>540</b>	490	432
ECO40-1.5L/4	1380	12	DER1	670	640	<b>620</b>	560	496
ECO40-2L/4	1586	12	DER1	735	700	<b>680</b>	630	544
ECO40-VL/4	1693	12	DER1	810	770	<b>750</b>	690	600
ECO43-1SN/4	1870	12	DER1	874	840	<b>800</b>	730	640
ECO43-2SN/4	2090	12	DER1	1016	975	<b>930</b>	850	744
ECO43-1LN/4	2395	12	DER1	1201	1150	<b>1100</b>	1000	880
ECO43-2LN/4	2660	12	DER1	1420	1358	<b>1300</b>	1200	1040
ECO43-VL/4	2950	12	DER1	1444	1396	<b>1330</b>	1210	1064
ECO46-1S/4	3010	12	DER1	1620	1552	<b>1500</b>	1350	1200
ECO46-1.5S/4	3380	12	DER1	1780	1700	<b>1650</b>	1480	1320
ECO46-2S/4	3565	12	DER1	1944	1863	<b>1800</b>	1600	1440
ECO46-1L/4	3810	12	DER1	2268	2173	<b>2100</b>	1900	1680
ECO46-1.5L/4	4260	12	DER1	2480	2380	<b>2300</b>	2050	1840
ECO46-2L/4	4380	12	DER1	2700	2588	<b>2500</b>	2250	2000

110-120 ΔΔ / 190-208 ΛΛ / 220-240 Δ / 380-415 Λ

220-240 ΔΔ / 380-415 ΛΛ / 440-460 Δ / 760-930 Λ

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

# 4 Pole | 50Hz | 1Phase

Voltage: 220/230/240 | Standard Winding - Reconnected - 12 Lead

RPM: 1500

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	220/230/240 Volts kVA @ 1.0 PF			230V 1.0 PF Eff%	220/230/240 Volts kVA @ 0.8 PF			230V 0.8 PF Eff%
				150/40	125/40	105/40		150/40	125/40	105/40	
ECP3-1S/4	59	12	DSR	4.5	<b>4.4</b>	4.1	75.4	4.1	<b>4</b>	3.7	73.4
ECP3-2S/4	65	12	DSR	5.7	<b>5.5</b>	5.1	77.4	5.2	<b>5</b>	4.7	75.4
ECP3-1L/4	79	12	DSR	7.7	<b>7.5</b>	6.8	78.9	6.9	<b>6.5</b>	6.1	76.9
ECP3-2L/4	87	12	DSR	9.3	<b>9</b>	8.3	79.4	8.3	<b>8</b>	7.4	77.4
ECP3-3L/4	93	12	DSR	10.3	<b>10</b>	9.1	79.6	9.3	<b>9</b>	8.2	77.6
ECP28-1VS/4	79	12	DSR	5.1	<b>5</b>	4.6	79.8	4.6	<b>4.5</b>	4.1	78.0
ECP28-2VS/4	86	12	DSR	7.2	<b>7</b>	6.4	80.1	6.4	<b>6.2</b>	5.7	78.3
ECP28-0S/4	96	12	DSR	8.7	<b>8.5</b>	7.8	80.8	7.8	<b>7.6</b>	7	78.7
ECP28-S/4	104	12	DSR	11.8	<b>11.5</b>	10.7	81.1	10.8	<b>10.5</b>	9.8	79.1
ECP28-M/4	115	12	DSR	13.8	<b>13.5</b>	12.3	81.4	12.2	<b>12</b>	11	79.4
ECP28-2L/4	136	12	DSR	16.7	<b>16.5</b>	15.1	82.1	15.2	<b>15</b>	13.7	80.1
ECP28-VL/4	162	12	DSR	19.5	<b>19</b>	17	82.6	17.5	<b>17</b>	15	80.6
ECP32-2S/4	194	12	DSR	25	<b>23.5</b>	22	82.7	22	<b>21</b>	20	80.7
ECP32-3S/4	209	12	DSR	30.6	<b>28</b>	26.4	83.4	26.5	<b>25.4</b>	24.3	81.4
ECP32-1L/4	243	12	DSR	35	<b>33</b>	32	84.0	32	<b>30</b>	29	82.0
ECP32-2L/4	277	12	DSR	44	<b>42</b>	38.5	84.7	40	<b>37.8</b>	34.5	82.7
ECP32-3L/4	293	12	DSR	51.2	<b>48</b>	44.8	84.8	44.8	<b>43.7</b>	40.5	82.8
ECP34-1S/4	331	12	DSR	60	<b>59</b>	55	84.8	55	<b>53</b>	50	82.8
ECP34-2S/4	409	12	DSR	64	<b>62</b>	56	86.2	58	<b>56</b>	51	84.2
ECP34-1L/4	467	12	DSR	76	<b>74</b>	68	87.2	69	<b>67</b>	61	85.2
ECP34-2L/4	481	12	DSR	85	<b>83</b>	74	88.1	75	<b>74</b>	65	86.1
ECP34-3L/4	485	12	DSR	87	<b>85</b>	76	88.2	78	<b>76</b>	63	86.2
ECO38-1SN/4	510	12	DSR	87	<b>85</b>	76	86.0	78	<b>76</b>	63	84.0
ECO38-2SN/4	560	12	DSR	89	<b>86</b>	79	86.6	82	<b>79</b>	72	84.6
ECO38-3SN/4	590	12	DSR	100	<b>98</b>	88	86.9	91	<b>89</b>	81	84.9
ECO38-1LN/4	680	12	DSR	116	<b>113</b>	101	87.4	104	<b>101</b>	89	85.4
ECO38-2LN/4	765	12	DSR	131	<b>128</b>	116	87.8	116	<b>113</b>	103	85.8
ECO38-3LN/4	905	12	DSR	154	<b>150</b>	136	87.5	135	<b>131</b>	120	85.5
ECO40-1S/4	1040	12	DER1	199	<b>188</b>	173	87.5	188	<b>176</b>	165	85.5
ECO40-2S/4	1118	12	DER1	225	<b>210</b>	195	87.6	214	<b>203</b>	180	85.6
ECO40-3S/4	1171	12	DER1	244	<b>236</b>	210	87.7	229	<b>225</b>	199	85.7
ECO40-1L/4	1324	12	DER1	270	<b>259</b>	236	87.9	255	<b>244</b>	225	85.9
ECO40-1.5L/4	1380	12	DER1	304	<b>293</b>	263	88.0	285	<b>274</b>	248	86.0
ECO40-2L/4	1586	12	DER1	334	<b>323</b>	300	88.0	311	<b>300</b>	278	86.0
ECO40-VL/4	1693	12	DER1	360	<b>380</b>	320	88.1	340	<b>330</b>	310	86.1

220/230/240 Δ Volts

220/230/240 ΔΔ Volts

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

Indicated voltage references to Delta or Double Delta connection.

Zigzag single phase connections available.

Consult Factory to choose for your application.

# 4 Pole | 50Hz | 1Phase

Voltage: 220/230/240 | Dedicated Winding - 4 Lead

RPM: 1500

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	220/230/240 Volts kVA @ 1.0 PF			230V 1.0 PF Eff%	220/230/240 Volts kVA @ 0.8 PF			230V 0.8 PF Eff%
				150/40	125/40	105/40		150/40	125/40	105/40	
ECP3-1S/4	59	4	DSR	5.1	<b>5</b>	4.6	75.6	4.6	<b>4.5</b>	4.2	73.6
ECP3-2S/4	65	4	DSR	6.2	<b>6</b>	5.6	77.6	5.6	<b>5.4</b>	5	75.6
ECP3-1L/4	79	4	DSR	8.8	<b>8.5</b>	7.7	79.1	7.7	<b>7.5</b>	6.9	77.1
ECP3-2L/4	87	4	DSR	10.3	<b>10</b>	9.3	79.6	9.3	<b>9</b>	8.4	77.6
ECP3-3L/4	93	4	DSR	11.3	<b>11</b>	9.8	79.8	10.3	<b>10</b>	9.2	77.8
ECP28-1VS/4	79	4	DSR	5.6	<b>5.5</b>	5	80.0	5.1	<b>5</b>	4.6	78.2
ECP28-2VS/4	86	4	DSR	7.7	<b>7.5</b>	6.9	80.3	6.7	<b>6.5</b>	6	78.5
ECP28-0S/4	96	4	DSR	9.2	<b>9</b>	8.2	81.0	8.3	<b>8.1</b>	7.4	78.9
ECP28-S/4	104	4	DSR	12.8	<b>12.5</b>	11.7	81.3	11.6	<b>11.3</b>	10.6	79.3
ECP28-M/4	115	4	DSR	14.8	<b>14.5</b>	13.2	81.6	13.3	<b>13</b>	12	79.6
ECP28-2L/4	136	4	DSR	18.3	<b>18</b>	16.3	82.3	16.4	<b>16.2</b>	14.8	80.3
ECP28-VL/4	160	4	DSR	22.6	<b>22</b>	20	82.8	20.5	<b>20</b>	18	80.8
ECP32-2S/4	194	4	DSR	31	<b>30</b>	28	82.9	27	<b>26</b>	24	80.9
ECP32-3S/4	209	4	DSR	34	<b>33</b>	30	83.6	29	<b>28</b>	26	81.6
ECP32-1L/4	243	4	DSR	39	<b>38</b>	34	84.2	34.4	<b>34</b>	31	82.2
ECP32-2L/4	277	4	DSR	43	<b>42</b>	38	84.9	39	<b>38</b>	33	82.9
ECP32-3L/4	293	4	DSR	47.1	<b>46</b>	43	85.0	43.1	<b>42</b>	39	83.0
ECP34-1S/4	331	4	DSR	67	<b>65</b>	61	85.0	60	<b>58</b>	53	83.0
ECP34-2S/4	409	4	DSR	78	<b>75</b>	69	86.4	69	<b>67</b>	61	84.4
ECP34-1L/4	467	4	DSR	83	<b>80</b>	73	87.4	74	<b>72</b>	66	85.4
ECP34-2L/4	481	4	DSR	85	<b>83</b>	76	88.3	77	<b>75</b>	69	86.3
ECP34-3L/4	485	4	DSR	88	<b>86</b>	79	88.4	82	<b>80</b>	73	86.4
ECO38-1SN/4	510	4	DSR	NA	<b>NA</b>	NA	-	NA	<b>NA</b>	NA	-
ECO38-2SN/4	560	4	DSR	99	<b>96</b>	87	86.8	91	<b>88</b>	80	84.8
ECO38-3SN/4	590	4	DSR	112	<b>108</b>	98	87.1	101	<b>98</b>	90	85.1
ECO38-1LN/4	680	4	DSR	129	<b>125</b>	112	87.6	116	<b>113</b>	99	85.6
ECO38-2LN/4	765	4	DSR	146	<b>142</b>	129	88.0	129	<b>125</b>	114	86.0
ECO38-3LN/4	905	4	DSR	172	<b>167</b>	151	87.7	150	<b>146</b>	133	85.7
ECO40-1S/4	1040	4	DER1	221	<b>208</b>	192	87.7	208	<b>196</b>	183	85.7
ECO40-2S/4	1118	4	DER1	250	<b>233</b>	217	87.8	238	<b>225</b>	200	85.8
ECO40-3S/4	1171	4	DER1	271	<b>263</b>	233	87.9	254	<b>250</b>	221	85.9
ECO40-1L/4	1324	4	DER1	300	<b>288</b>	263	88.1	283	<b>271</b>	250	86.1
ECO40-1.5L/4	1380	4	DER1	338	<b>325</b>	292	88.2	317	<b>304</b>	275	86.2
ECO40-2L/4	1586	4	DER1	371	<b>358</b>	333	88.2	346	<b>333</b>	308	86.2
ECO40-VL/4	1693	4	DER1	400	<b>385</b>	360	88.3	380	<b>370</b>	340	86.3

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

Consult Factory to choose for your application.

Ratings with damper cage.

# 4 Pole | 60Hz | 3Phase

Voltage: 480 | Standard Winding - 12 Lead

RPM: 1800

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF					
				163/27	150/40	125/27	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	8.4	8	8	<b>7.8</b>	7.2	6.2
ECP3-2S/4	65	12	DSR	10.5	10	10	<b>9.6</b>	9	7.7
ECP3-1L/4	79	12	DSR	14.3	13.8	13.8	<b>13.2</b>	12	10.6
ECP3-2L/4	87	12	DSR	17.5	16.9	16.9	<b>16.2</b>	15	13
ECP3-3L/4	93	12	DSR	19.3	18.8	18.8	<b>18</b>	16.5	14.4
ECP28-1VS/4	79	12	DSR	10	9.7	9.7	<b>9.4</b>	8.5	7.5
ECP28-2VS/4	86	12	DSR	14	13.6	13.6	<b>13.2</b>	12	10.6
ECP28-0S/4	96	12	DSR	17.5	16.7	16.7	<b>16.2</b>	15	13
ECP28-S/4	104	12	DSR	21.6	21	21	<b>20.4</b>	19	16.3
ECP28-M/4	115	12	DSR	25.8	24.6	24.6	<b>24</b>	22	19.2
ECP28-2L/4	136	12	DSR	31.8	30.6	30.6	<b>30</b>	27.5	24
ECP28-VL/4	162	12	DSR	38.4	36.6	36.6	<b>36</b>	32	29
ECP32-2S/4	194	12	DSR	47	44	44	<b>42</b>	40	34
ECP32-3S/4	209	12	DSR	57	54	54	<b>51</b>	49	41
ECP32-1L/4	243	12	DSR	67	63	63	<b>60</b>	58	48
ECP32-2L/4	277	12	DSR	83	78	78	<b>75.5</b>	72	60
ECP32-3L/4	293	12	DSR	100	93.7	93.7	<b>90</b>	83	72
ECP34-1S/4	331	12	DSR	114	108	108	<b>102</b>	92	82
ECP34-2S/4	409	12	DSR	139	132	132	<b>126</b>	114	101
ECP34-1L/4	467	12	DSR	178	172	172	<b>162</b>	146	130
ECP34-2L/4	481	12	DSR	196	189	189	<b>180</b>	163	144
ECP34-3L/4	485	12	DSR	210	202	202	<b>192</b>	173	154
ECO38-1SN/4	510	12	DSR	236	230	230	<b>220</b>	205	176
ECO38-2SN/4	560	12	DSR	264	253	253	<b>240</b>	220	192
ECO38-3SN/4	590	12	DSR	300	284	284	<b>270</b>	250	216
ECO38-1LN/4	680	12	DSR	330	316	316	<b>300</b>	280	240
ECO38-2LN/4	765	12	DSR	396	378	378	<b>360</b>	330	288
ECO38-3LN/4	905	12	DSR	444	432	432	<b>420</b>	385	336
ECO40-1S/4	1040	12	DER1	525	500	500	<b>480</b>	440	384
ECO40-2S/4	1118	12	DER1	590	563	563	<b>540</b>	490	432
ECO40-3S/4	1171	12	DER1	656	625	625	<b>600</b>	540	480
ECO40-1L/4	1324	12	DER1	722	680	680	<b>660</b>	600	528
ECO40-1.5L/4	1380	12	DER1	805	770	770	<b>744</b>	672	595
ECO40-2L/4	1586	12	DER1	882	840	840	<b>816</b>	756	653
ECO40-VL/4	1693	12	DER1	970	925	925	<b>900</b>	830	720
ECO43-1SN/4	1870	12	DER1	1050	1008	1008	<b>960</b>	870	768
ECO43-2SN/4	2090	12	DER1	1220	1170	1170	<b>1116</b>	1020	893
ECO43-1LN/4	2395	12	DER1	1442	1380	1380	<b>1320</b>	1200	1056
ECO43-2LN/4	2660	12	DER1	1704	1630	1630	<b>1560</b>	1440	1248
ECO43-VL/4	2950	12	DER1	1824	1765	1765	<b>1700</b>	1540	1360
ECO46-1S/4	3010	12	DER1	1944	1870	1870	<b>1800</b>	1620	1440
ECO46-1.5S/4	3380	12	DER1	2140	2040	2040	<b>1980</b>	1780	1584
ECO46-2S/4	3565	12	DER1	2332	2236	2236	<b>2160</b>	1920	1728
ECO46-1L/4	3810	12	DER1	2722	2608	2608	<b>2520</b>	2280	2016
ECO46-1.5L/4	4260	12	DER1	2980	2860	2860	<b>2760</b>	2460	2208
ECO46-2L/4	4380	12	DER1	3240	3105	3105	<b>3000</b>	2700	2400

138 ΔΔ / 240 ΔΔ / 277 Δ / 480 Δ Volts

277 ΔΔ / 480 ΔΔ / 554 Δ / 960 Δ Volts

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

# 4 Pole | 60Hz | 3Phase

Voltage: 440 | Standard Winding - 12 Lead

RPM: 1800

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	8.4	8	<b>7.8</b>	6.5	6.2
ECP3-2S/4	65	12	DSR	10.5	10	<b>9.6</b>	8	7.7
ECP3-1L/4	79	12	DSR	14.3	13.8	<b>13.2</b>	11	10.6
ECP3-2L/4	87	12	DSR	17.5	16.9	<b>16.2</b>	13.5	13
ECP3-3L/4	93	12	DSR	19.3	18.8	<b>18</b>	15	14.4
ECP28-1VS/4	79	12	DSR	9.4	9	<b>8.8</b>	7.8	7
ECP28-2VS/4	86	12	DSR	13.1	12.8	<b>12.4</b>	11	9.9
ECP28-0S/4	96	12	DSR	16.2	15.5	<b>15</b>	13.5	12
ECP28-S/4	104	12	DSR	19.7	19.1	<b>18.6</b>	17.5	15
ECP28-M/4	115	12	DSR	25	23.6	<b>23</b>	20	18.4
ECP28-2L/4	136	12	DSR	29	28	<b>27.5</b>	25.5	22
ECP28-VL/4	162	12	DSR	38.4	36.6	<b>36</b>	32	28.8
ECP32-2S/4	194	12	DSR	47	44	<b>42</b>	40	34
ECP32-3S/4	209	12	DSR	57	54	<b>51</b>	49	41
ECP32-1L/4	243	12	DSR	67	63	<b>60</b>	58	48
ECP32-2L/4	277	12	DSR	78	73	<b>71</b>	68	57
ECP32-3L/4	293	12	DSR	95	90	<b>86</b>	80	69
ECP34-1S/4	331	12	DSR	114	108	<b>102</b>	92	81
ECP34-2S/4	409	12	DSR	139	132	<b>126</b>	114	101
ECP34-1L/4	467	12	DSR	165	159	<b>150</b>	135	120
ECP34-2L/4	481	12	DSR	185	178	<b>170</b>	150	136
ECP34-3L/4	485	12	DSR	202	195	<b>185</b>	160	148
ECO38-1SN/4	510	12	DSR	236	230	<b>220</b>	205	176
ECO38-2SN/4	560	12	DSR	264	253	<b>240</b>	220	192
ECO38-3SN/4	590	12	DSR	300	284	<b>270</b>	250	216
ECO38-1LN/4	680	12	DSR	330	316	<b>300</b>	280	240
ECO38-2LN/4	765	12	DSR	374	357	<b>340</b>	310	272
ECO38-3LN/4	905	12	DSR	444	432	<b>420</b>	385	336
ECO40-1S/4	1040	12	DER1	492	469	<b>450</b>	410	360
ECO40-2S/4	1118	12	DER1	557	532	<b>510</b>	460	408
ECO40-3S/4	1171	12	DER1	634	604	<b>580</b>	520	464
ECO40-1L/4	1324	12	DER1	669	649	<b>630</b>	570	504
ECO40-1.5L/4	1380	12	DER1	757	724	<b>700</b>	632	560
ECO40-2L/4	1586	12	DER1	843	803	<b>780</b>	720	624
ECO40-VL/4	1693	12	DER1	970	925	<b>900</b>	830	720
ECO43-1SN/4	1870	12	DER1	1050	1008	<b>960</b>	870	768
ECO43-2SN/4	2090	12	DER1	1159	1111	<b>1060</b>	969	848
ECO43-1LN/4	2395	12	DER1	1376	1317	<b>1260</b>	1145	1008
ECO43-2LN/4	2660	12	DER1	1619	1548	<b>1482</b>	1368	1186
ECO43-VL/4	2950	12	DER1	1824	1765	<b>1700</b>	1540	1360
ECO46-1S/4	3010	12	DER1	1847	1776	<b>1710</b>	1530	1368
ECO46-1.5S/4	3380	12	DER1	2032	1937	<b>1880</b>	1690	1504
ECO46-2S/4	3565	12	DER1	2213	2122	<b>2050</b>	1820	1640
ECO46-1L/4	3810	12	DER1	2582	2473	<b>2390</b>	2150	1912
ECO46-1.5L/4	4260	12	DER1	2829	2715	<b>2620</b>	2330	2096
ECO46-2L/4	4380	12	DER1	3067	2939	<b>2840</b>	2550	2272

127ΔΔ / 220ΔΔ / 254Δ / 440Δ

254ΔΔ / 440ΔΔ / 508Δ / 880Δ

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

# 4 Pole | 60Hz | 3Phase

Voltage: 416-480 | Standard Winding - Broad voltage - 12 Lead

RPM: 1800

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	7.5	7.2	7	5.5	5.6
ECP3-2S/4	65	12	DSR	9.8	9.4	9	7.5	7.2
ECP3-1L/4	79	12	DSR	13	12.5	12	10	9.6
ECP3-2L/4	87	12	DSR	15.1	14.6	14	11.5	11.2
ECP3-3L/4	93	12	DSR	17.1	16.7	16	13	12.8
ECP28-1VS/4	79	12	DSR	8.8	8.6	8.3	7.5	6.6
ECP28-2VS/4	86	12	DSR	12.2	11.8	11.5	10.5	9.2
ECP28-0S/4	96	12	DSR	15.1	14.4	14	13	11.2
ECP28-S/4	104	12	DSR	18.5	18	17.5	16.5	14
ECP28-M/4	115	12	DSR	22.5	21.5	21	19	16.8
ECP28-2L/4	136	12	DSR	27.5	26.5	26	24	20.8
ECP28-VL/4	162	12	DSR	35.2	33.5	33	29	26.4
ECP32-2S/4	194	12	DSR	46	43	41	39	32.8
ECP32-3S/4	209	12	DSR	56	53	50	46	40
ECP32-1L/4	243	12	DSR	65	61	58	56	46
ECP32-2L/4	277	12	DSR	69	65	63	58	50
ECP32-3L/4	293	12	DSR	89	83	80	73	64
ECP34-1S/4	331	12	DSR	106	101	95	85.5	76
ECP34-2S/4	409	12	DSR	127	120	115	104	92
ECP34-1L/4	467	12	DSR	153	148	140	125	112
ECP34-2L/4	481	12	DSR	163	158	150	132	120
ECP34-3L/4	485	12	DSR	180	174	165	150	132
ECO38-1SN/4	510	12	DSR	225	220	210	195	168
ECO38-2SN/4	560	12	DSR	253	242	230	210	184
ECO38-3SN/4	590	12	DSR	289	273	260	240	208
ECO38-1LN/4	680	12	DSR	319	305	290	270	232
ECO38-2LN/4	765	12	DSR	358	341	325	300	260
ECO38-3LN/4	905	12	DSR	402	391	380	350	304
ECO40-1S/4	1040	12	DER1	459	438	420	383	336
ECO40-2S/4	1118	12	DER1	524	500	480	435	384
ECO40-3S/4	1171	12	DER1	590	563	540	484	432
ECO40-1L/4	1324	12	DER1	623	587	570	515	456
ECO40-1.5L/4	1380	12	DER1	714	683	660	600	528
ECO40-2L/4	1586	12	DER1	778	741	720	665	576
ECO40-VL/4	1693	12	DER1	929	885	860	790	688
ECO43-1SN/4	1870	12	DER1	962	924	880	800	704
ECO43-2SN/4	2090	12	DER1	1115	1069	1020	935	816
ECO43-1LN/4	2395	12	DER1	1311	1254	1200	1090	960
ECO43-2LN/4	2660	12	DER1	1585	1516	1451	1339	1161
ECO43-VL/4	2950	12	DER1	1717	1661	1600	1450	1280
ECO46-1S/4	3010	12	DER1	1730	1650	1600	1440	1280
ECO46-1.5S/4	3380	12	DER1	1870	1782	1730	1570	1384
ECO46-2S/4	3565	12	DER1	2100	2010	1950	1750	1560
ECO46-1L/4	3810	12	DER1	2480	2370	2300	2070	1840
ECO46-1.5L/4	4260	12	DER1	2613	2508	2420	2150	1936
ECO46-2L/4	4380	12	DER1	2920	2800	2700	2430	2160

120-139 ΔΔ / 208-240 ΔΔ / 240-277 Δ / 416-480 Δ

240-277 ΔΔ / 416-480 ΔΔ / 832-960 Δ

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

# 4 Pole | 60Hz | 3Phase

Voltage: 380 | Standard Winding - 12 Lead

RPM: 1800

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	7	6.7	<b>6.5</b>	6	5.2
ECP3-2S/4	65	12	DSR	8.8	8.3	<b>8</b>	7.3	6.4
ECP3-1L/4	79	12	DSR	11.9	11.5	<b>11</b>	10	8.8
ECP3-2L/4	87	12	DSR	14.5	14	<b>13.5</b>	12.3	10.8
ECP3-3L/4	93	12	DSR	16	15.6	<b>15</b>	13.7	12
ECP28-1VS/4	79	12	DSR	8.3	8	<b>7.8</b>	7	6.2
ECP28-2VS/4	86	12	DSR	11.6	11.3	<b>11</b>	10	8.8
ECP28-0S/4	96	12	DSR	14.6	13.9	<b>13.5</b>	12.5	10.8
ECP28-S/4	104	12	DSR	18	17.5	<b>17</b>	16	13.6
ECP28-M/4	115	12	DSR	21.5	20.5	<b>20</b>	18.5	16
ECP28-2L/4	136	12	DSR	26.5	25.5	<b>25</b>	23	20
ECP28-VL/4	162	12	DSR	32	30.5	<b>30</b>	26	24
ECP32-2S/4	194	12	DSR	39	37	<b>35</b>	33	28
ECP32-3S/4	209	12	DSR	48	45	<b>42.5</b>	39	34
ECP32-1L/4	243	12	DSR	56	53	<b>50</b>	48	40
ECP32-2L/4	277	12	DSR	69	65	<b>63</b>	58	50
ECP32-3L/4	293	12	DSR	83	78	<b>75</b>	67	60
ECP34-1S/4	331	12	DSR	95	90	<b>85</b>	77	68
ECP34-2S/4	409	12	DSR	116	110	<b>105</b>	95	84
ECP34-1L/4	467	12	DSR	148	143	<b>135</b>	122	108
ECP34-2L/4	481	12	DSR	163	158	<b>150</b>	136	120
ECP34-3L/4	485	12	DSR	175	168	<b>160</b>	145	128
ECO38-1SN/4	510	12	DSR	193	188	<b>180</b>	170	144
ECO38-2SN/4	560	12	DSR	220	211	<b>200</b>	185	160
ECO38-3SN/4	590	12	DSR	250	237	<b>225</b>	207	180
ECO38-1LN/4	680	12	DSR	275	263	<b>250</b>	230	200
ECO38-2LN/4	765	12	DSR	330	315	<b>300</b>	275	240
ECO38-3LN/4	905	12	DSR	370	360	<b>350</b>	320	280
ECO40-1S/4	1040	12	DER1	448	427	<b>410</b>	376	328
ECO40-2S/4	1118	12	DER1	502	480	<b>460</b>	421	368
ECO40-3S/4	1171	12	DER1	558	531	<b>510</b>	467	408
ECO40-1L/4	1324	12	DER1	613	577	<b>560</b>	513	448
ECO40-1.5L/4	1380	12	DER1	681	652	<b>630</b>	577	504
ECO40-2L/4	1586	12	DER1	746	710	<b>690</b>	632	552
ECO40-VL/4	1693	12	DER1	824	785	<b>763</b>	700	610
ECO43-1SN/4	1870	12	DER1	896	861	<b>820</b>	751	656
ECO43-2SN/4	2090	12	DER1	1038	996	<b>950</b>	871	760
ECO43-1LN/4	2395	12	DER1	1223	1171	<b>1120</b>	1026	896
ECO43-2LN/4	2660	12	DER1	1442	1379	<b>1320</b>	1210	1056
ECO43-VL/4	2950	12	DER1	1502	1453	<b>1400</b>	1280	1120
ECO46-1S/4	3010	12	DER1	1675	1610	<b>1550</b>	1420	1240
ECO46-1.5S/4	3380	12	DER1	1830	1740	<b>1690</b>	1550	1350
ECO46-2S/4	3565	12	DER1	2000	1915	<b>1850</b>	1705	1480
ECO46-1L/4	3810	12	DER1	2330	2235	<b>2160</b>	1980	1730
ECO46-1.5L/4	4260	12	DER1	2540	2435	<b>2350</b>	2155	1880
ECO46-2L/4	4380	12	DER1	2775	2660	<b>2570</b>	2355	2060

110 ΔΔ / 190 ΔΔ / 220 Δ / 380 Δ Volts

220 ΔΔ / 380 ΔΔ / 440 Δ / 760 Δ Volts

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

Indicated rating references to series or parallel star connection as per published table. On ECO40, ECO43 and ECO46, different series/parallel configurations are available on specific request: consult a MeccAlte representative for more information.

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

# 4 Pole | 60Hz | 3Phase

Voltage: 380 | Special Winding - Dedicated - 12 Lead

RPM: 1800

Insulation: Class H



MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C / 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	8.4	8	<b>7.8</b>	7.2	6.2
ECP3-2S/4	65	12	DSR	10.5	10	<b>9.6</b>	9	7.7
ECP3-1L/4	79	12	DSR	14.3	13.8	<b>13.2</b>	12	10.6
ECP3-2L/4	87	12	DSR	17.5	16.9	<b>16.2</b>	15	13
ECP3-3L/4	93	12	DSR	19.3	18.8	<b>18</b>	16.5	14.4
ECP28-1VS/4	79	12	DSR	10	9.7	<b>9.4</b>	8.5	7.5
ECP28-2VS/4	86	12	DSR	14	13.6	<b>13.2</b>	12	10.6
ECP28-0S/4	96	12	DSR	17.5	16.7	<b>16.2</b>	15	13
ECP28-S/4	104	12	DSR	21.6	21	<b>20.4</b>	19	16.3
ECP28-M/4	115	12	DSR	25.8	24.6	<b>24</b>	22	19.2
ECP28-2L/4	136	12	DSR	31.8	30.6	<b>30</b>	27.5	24
ECP28-VL/4	162	12	DSR	38.4	36.6	<b>36</b>	32	28.8
ECP32-2S/4	194	12	DSR	47	44	<b>42</b>	40	34
ECP32-3S/4	209	12	DSR	57	54	<b>51</b>	49	41
ECP32-1L/4	243	12	DSR	67	63	<b>60</b>	58	48
ECP32-2L/4	277	12	DSR	83	78	<b>75.5</b>	72	60
ECP32-3L/4	293	12	DSR	100	93.7	<b>90</b>	83	72
ECP34-1S/4	331	12	DSR	114	108	<b>102</b>	92	82
ECP34-2S/4	409	12	DSR	139	132	<b>126</b>	114	101
ECP34-1L/4	467	12	DSR	178	172	<b>162</b>	146	130
ECP34-2L/4	481	12	DSR	196	189	<b>180</b>	163	144
ECP34-3L/4	485	12	DSR	210	202	<b>192</b>	173	154
ECO38-1SN/4	510	12	DSR	236	230	<b>220</b>	205	176
ECO38-2SN/4	560	12	DSR	264	253	<b>240</b>	220	192
ECO38-3SN/4	590	12	DSR	300	284	<b>270</b>	250	216
ECO38-1LN/4	680	12	DSR	330	316	<b>300</b>	280	240
ECO38-2LN/4	765	12	DSR	396	378	<b>360</b>	330	288
ECO38-3LN/4	905	12	DSR	444	432	<b>420</b>	385	336
ECO40-1S/4	1040	12	DER1	525	500	<b>480</b>	440	384
ECO40-2S/4	1118	12	DER1	590	563	<b>540</b>	490	432
ECO40-3S/4	1171	12	DER1	656	625	<b>600</b>	540	480
ECO40-1L/4	1324	12	DER1	722	680	<b>660</b>	600	528
ECO40-1.5L/4	1380	12	DER1	805	770	<b>744</b>	672	595
ECO40-2L/4	1586	12	DER1	882	840	<b>816</b>	756	653
ECO40-VL/4	1693	12	DER1	1000	930	<b>900</b>	825	720
ECO43-1SN/4	1870	12	DER1	930	892	<b>850</b>	770	680
ECO43-2SN/4	2090	12	DER1	1148	1101	<b>1050</b>	959	840
ECO43-1LN/4	2395	12	DER1	1442	1380	<b>1320</b>	1200	1056
ECO43-2LN/4	2660	12	DER1	1704	1630	<b>1560</b>	1440	1248
ECO43-VL/4	2950	12	DER1	NA	NA	<b>NA</b>	NA	NA
ECO46-1S/4	3010	12	DER1	1944	1870	<b>1800</b>	1620	1440
ECO46-1.5S/4	3380	12	DER1	2054	1958	<b>1900</b>	1708	1520
ECO46-2S/4	3565	12	DER1	2160	2070	<b>2000</b>	1778	1600
ECO46-1L/4	3810	12	DER1	2722	2608	<b>2520</b>	2280	2016
ECO46-1.5L/4	4260	12	DER1	NA	NA	<b>NA</b>	NA	NA
ECO46-2L/4	4380	12	DER1	2672	2646	<b>2557</b>	2301	2046

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

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



# 4 Pole | 60Hz | 3Phase



Voltage: 600 | Special Winding - Dedicated - 12 Lead

RPM: 1800

Insulation: Class H

MODEL	WEIGHT (kg)	LEADS	AVR	kVA @ Temp. Rise / Ambient C/ 0.8 PF				
				163/27	150/40	125/40	105/40	80/40
ECP3-1S/4	59	12	DSR	8.4	8	<b>7.8</b>	7.2	6.2
ECP3-2S/4	65	12	DSR	10.5	10	<b>9.6</b>	9	7.7
ECP3-1L/4	79	12	DSR	14.3	13.8	<b>13.2</b>	12	10.6
ECP3-2L/4	87	12	DSR	17.5	16.9	<b>16.2</b>	15	13
ECP3-3L/4	93	12	DSR	19.3	18.8	<b>18</b>	16.5	14.4
ECP28-1VS/4	79	12	DSR	10	9.7	<b>9.4</b>	8.5	7.5
ECP28-2VS/4	86	12	DSR	14	13.6	<b>13.2</b>	12	10.6
ECP28-0S/4	96	12	DSR	17.5	16.7	<b>16.2</b>	15	13
ECP28-S/4	104	12	DSR	21.6	21	<b>20.4</b>	19	16.3
ECP28-M/4	115	12	DSR	25.8	24.6	<b>24</b>	22	19.2
ECP28-2L/4	136	12	DSR	31.8	30.6	<b>30</b>	27.5	24
ECP28-VL/4	162	12	DSR	38.4	36.6	<b>36</b>	32	28.8
ECP32-2S/4	194	12	DSR	47	44	<b>42</b>	40	34
ECP32-3S/4	209	12	DSR	57	54	<b>51</b>	49	41
ECP32-1L/4	243	12	DSR	67	63	<b>60</b>	58	48
ECP32-2L/4	277	12	DSR	83	78	<b>75.5</b>	72	60
ECP32-3L/4	293	12	DSR	100	93.7	<b>90</b>	83	72
ECP34-1S/4	331	12	DSR	114	108	<b>102</b>	92	82
ECP34-2S/4	409	12	DSR	139	132	<b>126</b>	114	101
ECP34-1L/4	467	12	DSR	178	172	<b>162</b>	146	130
ECP34-2L/4	481	12	DSR	196	189	<b>180</b>	163	144
ECP34-3L/4	485	12	DSR	210	202	<b>192</b>	173	154
ECO38-1SN/4	510	12	DSR	236	230	<b>220</b>	205	176
ECO38-2SN/4	560	12	DSR	264	253	<b>240</b>	220	192
ECO38-3SN/4	590	12	DSR	300	284	<b>270</b>	250	216
ECO38-1LN/4	680	12	DSR	330	316	<b>300</b>	280	240
ECO38-2LN/4	765	12	DSR	396	378	<b>360</b>	330	288
ECO38-3LN/4	905	12	DSR	444	432	<b>420</b>	385	336
ECO40-1S/4	1040	12	DER1	525	500	<b>480</b>	440	384
ECO40-2S/4	1118	12	DER1	590	563	<b>540</b>	490	432
ECO40-3S/4	1171	12	DER1	656	625	<b>600</b>	540	480
ECO40-1L/4	1324	12	DER1	722	680	<b>660</b>	600	528
ECO40-1.5L/4	1380	12	DER1	805	770	<b>744</b>	672	595
ECO40-2L/4	1586	12	DER1	882	840	<b>816</b>	756	653
ECO40-VL/4	1693	12	DER1	NA	NA	<b>NA</b>	NA	NA
ECO43-1SN/4	1870	12	DER1	990	940	<b>900</b>	825	720
ECO43-2SN/4	2090	12	DER1	1215	1162	<b>1115</b>	1012	892
ECO43-1LN/4	2395	12	DER1	1420	1355	<b>1300</b>	1170	1040
ECO43-2LN/4	2660	12	DER1	1704	1630	<b>1560</b>	1440	1248
ECO43-VL/4	2950	12	DER1	NA	NA	<b>NA</b>	NA	NA
ECO46-1S/4	3010	12	DER1	1836	1776	<b>1700</b>	1558	1360
ECO46-1.5S/4	3380	12	DER1	2140	2040	<b>1980</b>	1780	1584
ECO46-2S/4	3565	12	DER1	2332	2236	<b>2160</b>	1920	1728
ECO46-1L/4	3810	12	DER1	2430	2328	<b>2250</b>	2062	1800
ECO46-1.5L/4	4260	12	DER1	2700	2590	<b>2500</b>	2291	2000
ECO46-2L/4	4380	12	DER1	3240	3105	<b>3000</b>	2700	2400

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

ECO46: Refer To Factory before ordering to assure winding is available at 600 Volts at the indicated rating.

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

# 4 Pole | 60Hz | 1Phase

Voltage: 220/230/240 - 277 | Standard Winding - Reconnected - 12 Lead

RPM: 1800

Insulation: Class H

MODEL	AVR	220/230/240 Volts kVA @ 1.0 PF			220/230/240 Volts kVA @ 0.8 PF		277 Volts kVA @ 1.0 PF			Eff%	277 Volts kVA @ 0.8 PF		
		150/40	125/40	105/40	125/40	105/40	150/40	125/40	105/40		125/40	105/40	Eff%
ECP3-1S/4	DSR	4.6	<b>4.5</b>	4.1	<b>4.1</b>	3.8	5.4	<b>5.3</b>	4.9	76.9	<b>4.8</b>	4.4	74.9
ECP3-2S/4	DSR	5.9	<b>5.7</b>	5.3	<b>5.2</b>	5	6.8	<b>6.6</b>	6.2	79.1	<b>6</b>	5.6	77.1
ECP3-1L/4	DSR	7.9	<b>7.7</b>	7	<b>7</b>	6.4	9.3	<b>9</b>	8.2	80.7	<b>8</b>	7.3	78.7
ECP3-2L/4	DSR	9.6	<b>9.3</b>	8.6	<b>8.3</b>	8	11.1	<b>10.8</b>	10	81.2	<b>9.6</b>	9	79.2
ECP3-3L/4	DSR	10.5	<b>10.2</b>	9.3	<b>9.3</b>	8.5	12.3	<b>12</b>	11	81.5	<b>10.8</b>	10	79.5
ECP28-1VS/4	DSR	5.6	<b>5.5</b>	5	<b>4.4</b>	4	6.4	<b>6.3</b>	5.8	81.8	<b>5.6</b>	5.1	79.8
ECP28-2VS/4	DSR	7.8	<b>7.6</b>	7	<b>6.8</b>	6.2	9	<b>8.8</b>	8	82.0	<b>8</b>	7.3	80.0
ECP28-0S/4	DSR	9.6	<b>9.4</b>	8.6	<b>8.5</b>	7.8	11.0	<b>10.8</b>	10	82.2	<b>9.6</b>	8.8	80.3
ECP28-S/4	DSR	12.3	<b>12.0</b>	11	<b>11</b>	10	13.8	<b>13.5</b>	12.5	82.7	<b>12.5</b>	12	80.7
ECP28-M/4	DSR	14.5	<b>14</b>	13	<b>13</b>	12	16.3	<b>16</b>	15	83.0	<b>14.5</b>	13.3	81.0
ECP28-2L/4	DSR	17.6	<b>17</b>	15	<b>15.5</b>	14.2	20.3	<b>20</b>	18.3	83.7	<b>18</b>	16.5	81.7
ECP28-VL/4	DSR	20.1	<b>19.5</b>	18.1	<b>17.5</b>	16	23.7	<b>23</b>	20	84.2	<b>20.5</b>	18	82.2
ECP32-2S/4	DSR	25	<b>24</b>	23	<b>22</b>	20	29	<b>28</b>	27	84.3	<b>25</b>	24	82.3
ECP32-3S/4	DSR	31	<b>29</b>	28	<b>27</b>	25	36	<b>34</b>	33	84.8	<b>31</b>	30	82.8
ECP32-1L/4	DSR	35.5	<b>33.5</b>	32.5	<b>30.5</b>	29.5	41.5	<b>39.5</b>	37.5	86.7	<b>35.5</b>	34.5	84.7
ECP32-2L/4	DSR	44	<b>42</b>	38	<b>38</b>	35	52	<b>50</b>	46	87.3	<b>45</b>	41	85.3
ECP32-3L/4	DSR	52	<b>49</b>	46	<b>45</b>	41	63	<b>60</b>	56	87.3	<b>54</b>	49	85.3
ECP34-1S/4	DSR	60	<b>58</b>	55	<b>53</b>	50	72	<b>70</b>	66	86.7	<b>64</b>	60	84.7
ECP34-2S/4	DSR	63	<b>61</b>	56	<b>55</b>	51	76	<b>74</b>	67	87.8	<b>67</b>	61	85.8
ECP34-1L/4	DSR	75	<b>73</b>	66	<b>65</b>	60	91	<b>89</b>	80	88.9	<b>80</b>	73	86.9
ECP34-2L/4	DSR	85	<b>82</b>	74	<b>73</b>	64	102	<b>99</b>	89	89.9	<b>88</b>	78	87.9
ECP34-3L/4	DSR	86	<b>84</b>	76	<b>75</b>	66.4	104	<b>101</b>	91	90.0	<b>90</b>	80	88.0
ECO38-1SN/4	DSR	86	<b>84</b>	76	<b>75</b>	66	104	<b>101</b>	91	87.0	<b>90</b>	80	85.0
ECO38-2SN/4	DSR	89	<b>86</b>	78	<b>78</b>	72	107	<b>104</b>	94	88.2	<b>95</b>	87	86.2
ECO38-3SN/4	DSR	100	<b>97</b>	88	<b>88</b>	81	121	<b>117</b>	106	88.8	<b>106</b>	97	86.8
ECO38-1LN/4	DSR	115	<b>112</b>	101	<b>101</b>	89	139	<b>135</b>	121	89.2	<b>122</b>	107	87.2
ECO38-2LN/4	DSR	131	<b>127</b>	116	<b>112</b>	103	158	<b>153</b>	139	89.8	<b>135</b>	124	87.8
ECO38-3LN/4	DSR	154	<b>149</b>	135	<b>131</b>	119.4	185	<b>180</b>	163	88.5	<b>158</b>	144	86.5
ECO40-1S/4	DER1	198	<b>187</b>	172	<b>176</b>	164	239	<b>225</b>	207	88.5	<b>212</b>	198	86.5
ECO40-2S/4	DER1	224	<b>209</b>	194	<b>202</b>	179	270	<b>252</b>	234	88.6	<b>243</b>	216	86.6
ECO40-3S/4	DER1	243	<b>235</b>	209	<b>224</b>	198	293	<b>284</b>	252	88.9	<b>270</b>	239	86.9
ECO40-1L/4	DER1	269	<b>258</b>	235	<b>243</b>	224	324	<b>311</b>	284	88.9	<b>293</b>	270	86.9
ECO40-1.5L/4	DER1	303	<b>291</b>	261	<b>273</b>	247	365	<b>351</b>	315	89.2	<b>329</b>	297	87.2
ECO40-2L/4	DER1	332	<b>321</b>	299	<b>299</b>	276	401	<b>387</b>	360	89.3	<b>360</b>	333	87.3
ECO40-VL/4	DER1	366	<b>350</b>	327	<b>334</b>	311	441	<b>422</b>	394	89.4	<b>403</b>	375	87.4

220/230/240-277 Δ V

220/230/240-277 ΔΔ V

All machines have an auxiliary winding 'standard' with 300% short circuit capability.  
 All the above machines are 12 lead. The Weights are the same as the 'standard' 3 phase Models.  
 Indicated voltage references to Delta or Double Delta connection.  
 Zigzag single phase connections available.  
 Consult Factory to choose for your application.

# 4 Pole | 60Hz | 1Phase

Voltage: 220/230/240 | Dedicated Winding - 4 Lead

RPM: 1800

Insulation: Class H

MODEL	WEIGHT (kg)	AVR	220/230/240 Volts kVA @ 1.0 PF				220/230/240 Volts kVA @ 0.8 PF			
			150/40	125/40	105/40	Eff %	150/40	125/40	105/40	Eff %
ECP3-1S/4	59	DSR	6.1	<b>6</b>	5.6	77.1	5.6	<b>5.5</b>	5.1	75.1
ECP3-2S/4	65	DSR	7.7	<b>7.5</b>	7.1	79.3	6.7	<b>6.5</b>	6	77.3
ECP3-1L/4	79	DSR	10.3	<b>10</b>	9.2	80.9	9.3	<b>9</b>	8.3	78.9
ECP3-2L/4	87	DSR	12.4	<b>12</b>	11.1	81.4	11.2	<b>10.8</b>	10.1	79.4
ECP3-3L/4	93	DSR	13.9	<b>13.5</b>	12.5	81.7	12.4	<b>12</b>	11.2	79.7
ECP28-1VS/4	79	DSR	6.6	<b>6.5</b>	6	82.0	5.8	<b>5.7</b>	5.2	80.0
ECP28-2VS/4	86	DSR	9.2	<b>9</b>	8.2	82.2	8.2	<b>8</b>	7.3	80.2
ECP28-0S/4	96	DSR	11.3	<b>11</b>	10	82.4	10	<b>9.8</b>	9	80.5
ECP28-S/4	104	DSR	15.4	<b>15</b>	13.9	82.9	13.9	<b>13.5</b>	13	80.9
ECP28-M/4	115	DSR	17.3	<b>17</b>	15.9	83.2	16	<b>15.7</b>	14.4	81.2
ECP28-2L/4	136	DSR	22.3	<b>22</b>	20.4	83.9	19.3	<b>19</b>	17.4	81.9
ECP28-VL/4	162	DSR	25.7	<b>25</b>	22	84.4	22.6	<b>22</b>	20	82.4
ECP32-2S/4	194	DSR	37	<b>36</b>	34	84.5	32	<b>31</b>	29	82.5
ECP32-3S/4	209	DSR	41	<b>40</b>	36	85.0	35	<b>34</b>	31	83.0
ECP32-1L/4	243	DSR	47	<b>46</b>	41	86.9	42	<b>41</b>	37	84.9
ECP32-2L/4	277	DSR	52	<b>50</b>	45	87.5	47	<b>46</b>	40	85.5
ECP32-3L/4	293	DSR	57	<b>55</b>	52	87.5	52	<b>50</b>	47	85.5
ECP34-1S/4	331	DSR	80	<b>78</b>	73	86.9	72	<b>70</b>	64	84.9
ECP34-2S/4	409	DSR	93	<b>90</b>	82	88.0	84	<b>81</b>	74	86.0
ECP34-1L/4	467	DSR	101	<b>98</b>	90	89.1	91	<b>88</b>	81	87.1
ECP34-2L/4	481	DSR	103	<b>100</b>	92	90.1	93	<b>90</b>	82	88.1
ECP34-3L/4	485	DSR	108	<b>105</b>	96	90.2	98	<b>95</b>	87	88.2
ECO38-1SN/4	510	DSR	NA	<b>NA</b>	NA	-	NA	<b>NA</b>	NA	-
ECO38-2SN/4	560	DSR	119	<b>115</b>	105	88.4	109	<b>105</b>	96	86.4
ECO38-3SN/4	590	DSR	134	<b>130</b>	118	89.0	121	<b>118</b>	108	87.0
ECO38-1LN/4	680	DSR	154	<b>150</b>	135	89.4	139	<b>135</b>	119	87.4
ECO38-2LN/4	765	DSR	175	<b>170</b>	155	90.0	154	<b>150</b>	137	88.0
ECO38-3LN/4	905	DSR	206	<b>200</b>	181	88.7	180	<b>175</b>	160	86.7
ECO40-1S/4	1040	DER1	265	<b>250</b>	230	88.7	250	<b>235</b>	220	86.7
ECO40-2S/4	1118	DER1	300	<b>280</b>	260	88.8	285	<b>270</b>	240	86.8
ECO40-3S/4	1171	DER1	325	<b>315</b>	280	89.1	305	<b>300</b>	265	87.1
ECO40-1L/4	1324	DER1	360	<b>345</b>	315	89.1	340	<b>325</b>	300	87.1
ECO40-1.5L/4	1586	DER1	405	<b>390</b>	350	89.4	380	<b>365</b>	330	87.4
ECO40-2L/4	1693	DER1	445	<b>430</b>	400	89.5	415	<b>400</b>	370	87.5
ECO40-VL/4	1380	DER1	490	<b>469</b>	438	89.6	463	<b>448</b>	417	87.6

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

All the above machines are 4 lead. Ratings with damper cage.

Consult Factory to choose for your application.

# 4 Pole | 50/60Hz | 3Phase

Voltage: Various - 12 Lead

RPM: 3000/3600 – 1500/1800

Insulation: Class H

## 4 Pole, 1500rpm (Transformer)

MODEL	WEIGHT (kg)	LEADS	3Phase, 50Hz kVA @ 0.8 PF			
			115/200/230/400 V		110/190/220/380 V	
			125/40	105/40	125/40	105/40
ECSP28-S/4	104	12	17	16	17	16
ECSP28-M/4	115	12	20	18.5	20	18.5
ECSP28-2L/4	136	12	25	23	25	23
ECSP28-VL/4	162	12	30	26	30	26
ECSP32-2S/4	194	12	35	33	35	33
ECSP32-3S/4	209	12	42.5	39	42.5	39
ECSP32-1L/4	243	12	50	48	50	48
ECSP32-2L/4	277	12	63	60	63	60
ECSP32-3L/4	293	12	75	67	75	67

## 4 Pole, 1800rpm (Transformer)

MODEL	WEIGHT (kg)	LEADS	3Phase, 60Hz kVA @ 0.8 PF			
			138/240/277/480 V		133/230/265/460 V	
			125/40	105/40	125/40	105/40
ECSP28-S/4	104	12	20.4	19	20.4	19
ECSP28-M/4	115	12	24	22	24	22
ECSP28-2L/4	136	12	30	27.5	30	27.5
ECSP28-VL/4	162	12	36	32	36	32
ECSP32-2S/4	194	12	42	40	42	40
ECSP32-3S/4	209	12	51	49	51	49
ECSP32-1L/4	243	12	60	58	60	58
ECSP32-2L/4	277	12	75.5	72	75.5	72
ECSP32-3L/4	293	12	90	83	90	83

## 2 Pole, 3000rpm 50Hz (Transformer)

MODEL	WEIGHT (kg)	LEADS	3 Phase, 50Hz kVA @ 0.8 PF			
			115/200/230/400 V		110/190/220/380 V	
			125/40	105/40	125/40	105/40
ECSP28-M/2	126	12	22	20	22	20
ECSP28-2L/2	136	12	27	25	27	25
ECSP28-3L/2	140	12	31.5	30	31.5	30
ECSP28-VL/2	156	12	40	37	40	37
ECSP32-2SN/2	173	12	44	40	44	40
ECSP32-3SN/2	199	12	55	50	55	50
ECSP32-1LN/2	212	12	66	60	66	60
ECSP32-2LN/2	231	12	82	75	82	75

## 2 Pole, 3600rpm 60Hz (Transformer)

MODEL	WEIGHT (kg)	LEADS	3 Phase, 60Hz kVA @ 0.8 PF			
			138/240/277/480 V		133/230/265/460 V	
			125/40	105/40	125/40	105/40
ECSP28-M/2	126	12	26.5	24	26.5	24
ECSP28-2L/2	136	12	32.5	30	32.5	30
ECSP28-3L/2	140	12	38	36	38	36
ECSP28-VL/2	156	12	48	44	48	44
ECSP32-2SN/2	173	12	53	48	53	48
ECSP32-3SN/2	199	12	66	60	66	60
ECSP32-1LN/2	212	12	79.5	72	79.5	72
ECSP32-2LN/2	231	12	98.5	90	98.5	90

2 &amp; 4 Pole, other voltages available. Refer to Factory.

AVIR regulator is available on option on the ECSO &amp; ECSP range.

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

Voltage: Various - 12 Lead

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 V	400 V	415 V	416 V	440 V	480 V
ECP28-1VS/4	79	12	DSR	7.8	<b>7.8</b>	7.8	8.3	<b>8.8</b>	9.4
ECP28-2VS/4	86	12	DSR	11	<b>11</b>	11	11.5	<b>12.4</b>	13.2
ECP28-0S/4	96	12	DSR	13.5	<b>13.5</b>	13.5	14	<b>15</b>	16.2
ECP28-S/4	104	12	DSR	17	<b>17</b>	17	17.5	<b>18.6</b>	20.4
ECP28-M/4	115	12	DSR	20	<b>20</b>	20	21	<b>23</b>	24
ECP28-2L/4	136	12	DSR	25	<b>25</b>	25	26	<b>27.5</b>	30
ECP28-VL/4	162	12	DSR	30	<b>30</b>	30	33	<b>36</b>	36

## Lister Petter (TS & TR) 1Phase Reconnected

				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	79	12	DSR	5	6.3
ECP28-2VS/4	86	12	DSR	7	8.8
ECP28-0S/4	96	12	DSR	8.5	10.8
ECP28-S/4	104	12	DSR	11.5	13.5
ECP28-M/4	115	12	DSR	13.5	16
ECP28-2L/4	136	12	DSR	16.5	20
ECP28-VL/4	162	12	DSR	19	23

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

# 2/4 Pole | 50/60Hz | 1 Phase

Voltage: 230/115; 240/120 - 4 Lead

RPM: 1500/1800

Insulation: Class H

## 4 Pole

kVA @ 230/115V, 50Hz, 1.0 pf

MODEL	WEIGHT (kg)	LENGTH (mm)	125/40	105/40	80/40	Eff %
LT3N-75/4	32	248	3.5	3.2	2.8	75.8
LT3N-100/4	38	273	4.5	4.1	3.6	76.5
LT3N-110/4	40	283	5	4.6	4	76.8
LT3N-130/4	46	303	6	5.5	4.8	77.5
LT3N-160/4	55	333	8	7.3	6.4	78.0

## 4 Pole

kVA @ 240/120V, 60Hz, 1.0 pf

MODEL	WEIGHT (kg)	LENGTH (mm)	125/40	105/40	80/40	Eff %
LT3N-75/4	32	248	4.5	4.1	3.6	76.5
LT3N-100/4	38	273	6	5.5	4.8	77.5
LT3N-110/4	40	283	6.5	6	5.2	78.0
LT3N-130/4	46	303	7.5	6.9	6	78.6
LT3N-160/4	55	333	10	9.2	8	79.2

## 2 Pole

kVA @ 230/115V, 50Hz, 1.0 pf

MODEL	WEIGHT (kg)	LENGTH (mm)	125/40	105/40	80/40	Eff %
LT3N-100/2	40	273	7	6.4	5.6	79.8
LT3N-130/2	49	303	10	9.2	8	80.2

## 2 Pole

kVA @ 240/120V, 60Hz, 1.0 pf

MODEL	WEIGHT (kg)	LENGTH (mm)	125/40	105/40	80/40	Eff %
LT3N-100/2	40	273	8.4	7.7	6.7	80.3
LT3N-130/2	49	303	12	11	9.6	80.7

Brushless capacitor excited machines specifically for Metal Halide light tower lamps.

For custom voltages or non-standard lamp striking voltages, 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	<b>7.5</b>	7.3	<b>9</b>	8.4
NPE 32-B/4	83	12	<b>11.5</b>	10.5	<b>14</b>	12.5
NPE 32-C/4	90	12	<b>13</b>	12	<b>16</b>	14.5
NPE 32-D/4	102	12	<b>17</b>	15.5	<b>21</b>	19
NPE 32-E/4	120	12	<b>25</b>	23	<b>31</b>	28.5
NPE 32-F/4	134	12	<b>27.5</b>	25	<b>34</b>	31

1Phase (Dedicated Winding)			kVA 115/230V 50 Hz, 1.0pf		kVA 120/240V 60 Hz, 1.0pf	
MODEL	WEIGHT (kg)	LEADS	125/40	105/40	125/40	105/40
NPE 32-A/4	75	4	<b>6.4</b>	6.2	<b>8.4</b>	8
NPE 32-B/4	81	4	<b>8.7</b>	8.3	<b>10.5</b>	10
NPE 32-C/4	88	4	<b>10.8</b>	10.4	<b>13</b>	12.5
NPE 32-D/4	100	4	<b>13.8</b>	13.3	<b>17</b>	16
NPE 32-E/4	118	4	<b>18.5</b>	17.5	<b>22</b>	21
NPE 32-F/4	132	4	<b>22.5</b>	21	<b>26.5</b>	25

1Phase (Re-connected)			kVA 115/230V 50 Hz, 1.0pf		kVA 120/240V 60 Hz, 1.0pf	
MODEL	WEIGHT (kg)	LEADS	125/40	105/40	125/40	105/40
NPE 32-A/4	77	12	<b>5</b>		<b>6</b>	
NPE 32-B/4	83	12	<b>7.5</b>		<b>9.3</b>	
NPE 32-C/4	90	12	<b>8.6</b>		<b>10.6</b>	
NPE 32-D/4	102	12	<b>11.3</b>		<b>14</b>	
NPE 32-E/4	120	12	<b>16.6</b>		<b>20.6</b>	
NPE 32-F/4	134	12	<b>18.3</b>		<b>22.6</b>	

Space Efficient- designed for length reduction.

All the generators on this page come 'standard' with the DSR AVR.

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

Voltage: Various

RPM: 3000/3600

Insulation: Class H

## 3Phase

MODEL	WEIGHT (kg)	LEADS	kVA 115/200/230/400V 50 Hz, 0.8pf		kVA 138/240/277/480V 60 Hz, 0.8pf	
			125/40	105/40	125/40	105/40
NPE 31-A/2	77	12	8	7.8	10	9.3
NPE 31-B/2	83	12	10.5	9.6	13	11.6
NPE 31-C/2	90	12	13.5	12.3	16.5	15
NPE 31-D/2	102	12	21	19	25.5	23
NPE 31-E/2	120	12	26	23.8	31.5	29
NPE 31-F/2	134	12	32	28.8	38.4	35

## 1Phase (Dedicated Winding)

MODEL	WEIGHT (kg)	LEADS	kVA 115/230V 50 Hz, 1.0pf		kVA 120/240V 60 Hz, 1.0pf	
			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	11	14.4	13.2
NPE 31-D/2	100	4	15	13.6	18	16.3
NPE 31-E/2	118	4	21	19	25.2	23
NPE 31-F/2	132	4	25	23	30	27.5

## 1Phase (Re-connected)

MODEL	WEIGHT (kg)	LEADS	kVA 115/230V 50 Hz, 1.0pf		kVA 120/240V 60 Hz, 1.0pf	
			125/40	105/40	125/40	105/40
NPE 31-A/2	77	12	5.3		6.6	
NPE 31-B/2	83	12	7		8.6	
NPE 31-C/2	90	12	9		11	
NPE 31-D/2	102	12	14		16.8	
NPE 31-E/2	120	12	17.3		21	
NPE 31-F/2	134	12	21.3		25.5	

Space Efficient- designed for length reduction.

All the generators on this page come 'standard' with the DSR AVR.



# 4 Pole | 50/60Hz | 3Phase

Voltage: Various - 12 Lead

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 airborne 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

115 / 200 / 230 / 400 V

MODEL	WEIGHT (kg)	LEADS	AVR	125/40	105/40	80/40	95/50
TE34-1S/4	310	12	UVR6	50	45	40	42
TE34-2S/4	376	12	UVR6	60	54	48	50
TE34-1L/4	396	12	UVR6	70	63	56	58
TE34-2L/4	430	12	UVR6	80	72	64	67

kVA @ 60Hz Temp. Rise/Amb. C / 0.8PF

138 / 240 / 276 / 480 V

MODEL	WEIGHT (kg)	LEADS	AVR	125/40	105/40	80/40	95/50
TE34-1S/4	310	12	UVR6	60	54	48	50
TE34-2S/4	376	12	UVR6	72	65	57.5	60
TE34-1L/4	396	12	UVR6	84	76	67	70
TE34-2L/4	430	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 - 6 /12 Lead

RPM: 3428/2400/2000

Insulation: Class H



Multi-Pole | 400Hz

MODEL	WEIGHT (kg)	LEADS	AVR	RPM	kVA @ Temp. Rise / Ambient C	
					125/40	105/40
HCP3-1S/14	49	6	UVR6/H	3428	5.5	5
HCP3-2S/14	54	6	UVR6/H	3428	7	6.5
HCP3-3S/14	61	6	UVR6/H	3428	9	8.5
HCP3-2L/14	72	6	UVR6/H	3428	11	10
HCP3-3L/14	80	6	UVR6/H	3428	13	12
HCP32-1S/20	187	12	UVR6/H	2400	45	40
HCP32-2S/20	220	12	UVR6/H	2400	50	45
HCP32-2L/20	275	12	UVR6/H	2400	60	55
HCP32-3L/20	300	12	UVR6/H	2400	70	65
HCP34-1S/20	318	12	UVR6/H	2400	75	70
HCP34-2S/20	345	12	UVR6/H	2400	95	85
HCP34-3S/20	380	12	UVR6/H	2400	125	115
HCP34-1L/20	430	12	UVR6/H	2400	150	135
HCP34-1SN/24*	346	12	UVR6/H	2000	60	55
HCP34-2SN/24*	420	12	UVR6/H	2000	90	80
HCP34-2LN/24*	502	12	UVR6/H	2000	125	110
HCO38-1L/24*	775	12	UVR6/H	2000	150	135
HCO38-2L/24*	837	12	UVR6/H	2000	180	165
HCO38-3L/24*	932	12	UVR6/H	2000	200	180

\* 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 underfrequency, over voltage protection, 3ph reference; regulation is  $\pm 1\%$

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 as option.
- ▶ 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 - 12 Lead

RPM: 3000/3600

Insulation: Class H

## 1 Phase - Reconnected

MODEL	WEIGHT (kg)	AVR	50Hz, 1.0 PF			60Hz, 1.0 PF		
			kVA @ Temp Rise/Ambient		%EFF	kVA @ Temp Rise/Ambient		%EFF
			220/230/240 V ΔΔ			277 V Δ		
			125/40	105/40		125/40	105/40	
ECP3-1S/2	56	DSR	5.5	5	72.6	6.6	5.9	74.2
ECP3-2S/2	62	DSR	7	6.3	73.9	8.4	7.6	75.6
ECP3-3S/2	68	DSR	8	7.2	74.0	9.6	8.6	75.7
ECP3-1L/2	80	DSR	10.5	9.5	77.9	12.5	11.2	79.8
ECP3-2L/2	88	DSR	12.5	11.4	78.8	15	13.5	80.7
ECP28-M/2	126	DSR	14.5	13	79.5	17.5	16	81.1
ECP28-2L/2	136	DSR	17	15	80.9	20.5	18	82.5
ECP28-3L/2	141	DSR	20	18	81.7	24	22	83.3
ECP28-VL/2	156	DSR	24	22	81.9	29	26.5	83.5
ECP32-2SN/2	173	DSR	29	26	81.4	35	32	82.8
ECP32-3SN/2	199	DSR	36	32	82.2	43	39	84.8
ECP32-1LN/2	212	DSR	43	39	83.0	51.5	47	85.5
ECP32-2LN/2	231	DSR	54	49	83.1	65	59	85.6
ECP34-1S/2	334	DSR	67	60	85.9	80	72	88.1
ECP34-2S/2	403	DSR	83	75	86.5	100	90	88.4
ECP34-1L/2	446	DSR	104	93	87.0	125	113	89.0
ECP34-2L/2	482	DSR	113	103	87.5	139	125	89.7
ECO37-1SN/2	510	DSR	105	95	87.7	125	112	89.7
ECO37-1LN/2	676	DSR	140	125	88.2	167	153	90.3
ECO37-2LN/2	790	DSR	199	182	88.7	240	220	91.0

## 3Phase

MODEL	WEIGHT (kg)	AVR	50Hz, 0.8 PF			60Hz, 0.8 PF				
			kVA @ Temp Rise/Ambient			kVA @ Temp Rise/Ambient				
			115/200/230/400 V			138/240/277/480 V		120/208/240/415 V		
			125/40	105/40	%EFF	125/40	105/40	%EFF	125/40	105/40
ECP3-1S/2	56	DSR	8	7.2	78.5	9.6	8.6	79.9	8.5	7
ECP3-2S/2	62	DSR	10	9	80.5	12	10.8	82.8	10.5	9
ECP3-3S/2	68	DSR	12.5	11	83.0	15	13	84.5	13	10.5
ECP3-1L/2	80	DSR	16	14.5	84.5	19.2	17	86.1	17	14
ECP3-2L/2	88	DSR	20	18	85.5	24	21.5	87.2	21	18
ECP28-M/2	126	DSR	22	20	85.2	26.5	24	86.2	22	20
ECP28-2L/2	136	DSR	27	25	86.4	32.5	30	87.9	27	24.5
ECP28-3L/2	141	DSR	31.5	30	87.2	38	36	89.2	32	30
ECP28-VL/2	156	DSR	40	37	87.8	48	44	89.7	40	37.5
ECP32-2SN/2	173	DSR	44	40	87.4	53	48	89.2	46	41.5
ECP32-3SN/2	199	DSR	55	50	88.1	66	60	89.5	58	52.5
ECP32-1LN/2	214	DSR	66	60	88.4	79.5	72	90.2	68	61.5
ECP32-2LN/2	231	DSR	82	75	89.0	98.5	90	90.5	84	76
ECP34-1S/2	334	DSR	100	90	90.0	120	108	91.8	105	95
ECP34-2S/2	403	DSR	125	113	90.7	150	135	92.2	130	120
ECP34-1L/2	446	DSR	156	140	91.2	187	169	92.8	160	145
ECP34-2L/2	482	DSR	170	154	91.8	208	188	93.5	175	160
ECO37-1SN/2	510	DSR	158	142	91.7	188	169	93.1	163	150
ECO37-1LN/2	676	DSR	208	188	92.2	250	225	93.5	215	197
ECO37-2LN/2	790	DSR	300	270	92.8	360	324	93.9	315	288

# 2 Pole | 50/60Hz | 1Phase

Voltage: Various - 4 Lead

RPM: 3000/3600

Insulation: Class H



## 2 Pole | 1Phase (Capacitor)

MODEL	WEIGHT (kg)	kVA @ 1.0 PF, 50Hz		kVA @ 1.0 PF, 60Hz	
		115/230 V	%EFF	120/240 V	%EFF
S15W-45	8.1	1.2	68.8	1.45	69.7
S15W-60	10.4	1.8	70.2	2.2	71.2
S15W-75	12.4	2.1	71.4	2.5	71.8
S15W-85	13.4	2.4	71.8	2.9	72.2
S15W-102	14.8	2.8	72	3.4	72.3
S16W-75	14.3	2.5	74	3	74.6
S16W-90	16.1	3.5	75	4.2	75.6
S16W-105	17.7	4.1	76	4.9	76.6
S16W-130	21	5	77	6	77.6
S16W-150	23.7	5.7	78	6.8	78.6
S20W-95	27.4	6	77.5	7.2	78.2
S20W-110	30.5	7	78.4	8.4	79.2
S20W-130	34.9	8.5	79	10.2	79.8
S16F-150	28	5.5	79	6.6	79.6
S16F-180	31	6.5	79.5	7.8	80.1
S20FS-130	41.7	8.5	79	10.5	79.4
S20FS-160	48.7	10.0	79.2	12	79.6
S20F-200	56.5	12.0	80.3	14.4	80.8
S20F-230	60	13.0	82.1	15.5	82.7

Above machines are brushless with capacitor control and optional AVR.

## 2 Pole | 1Phase (AVR)

MODEL	WEIGHT (kg)	kVA @ 1.0 PF, 50Hz		kVA @ 1.0 PF, 60Hz	
		115/230 V	%EFF	120/240 V	%EFF
ES16F-130	25.8	4.5	79.4	5.5	80
ES16F-160	29.8	5.5	79.8	6.8	80.5
ES20FS-130	41.2	8	79.4	9.6	79.8
ES20FS-160	48.2	9.5	79.6	11.4	80
ES20F-200	56	11	80.7	13.2	81.2

Above machines are brush type with AVR control.

# 2 Pole | 50/60Hz | 3Phase

Voltage: Various - 6 Lead

RPM: 3000/3600

Insulation: Class H



2 Pole   3Phase (Transformer)		kVA @ 0.8 PF, 50Hz		kVA @ 0.8 PF, 60Hz	
MODEL	WEIGHT (kg)	230/400 V	%EFF	277/480 V	%EFF
<b>T16F-130</b>	30.5	6.0	79.8	7.2	80.3
<b>T16F-160</b>	34.5	7.5	82.0	9	82.5
<b>T20FS-130</b>	44.7	10	81.5	12	83.0
<b>T20FS-160</b>	51.7	12.5	82.0	15	83.5
<b>T20F-200</b>	59.5	15	82.6	18	83.8

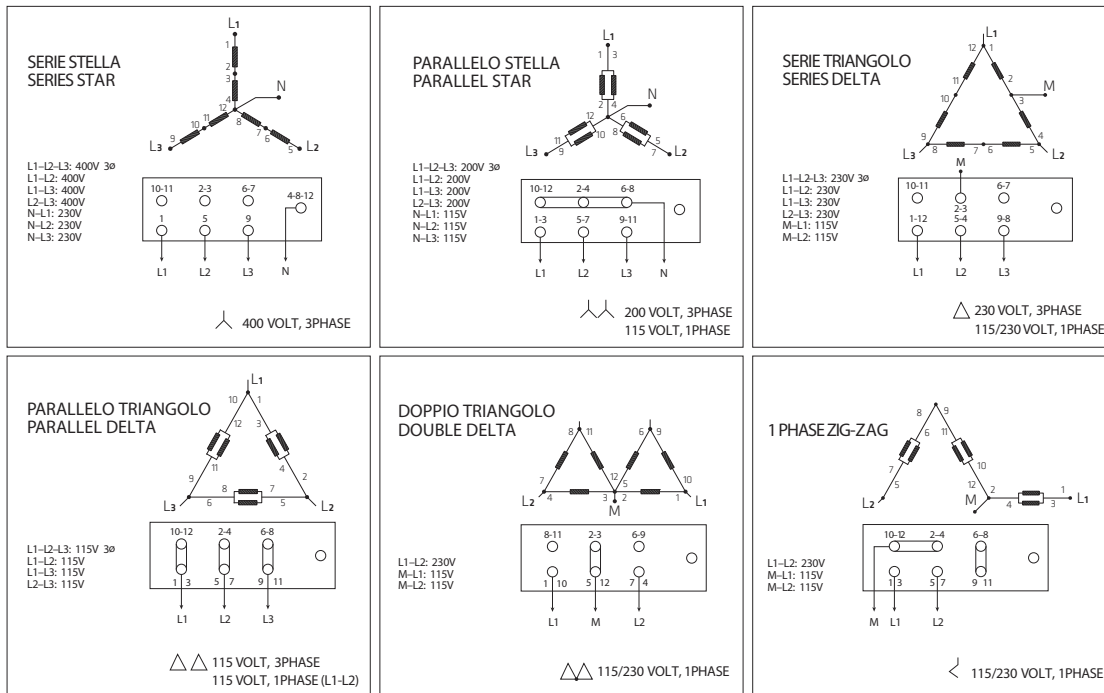
Above machines are brush type with transformer control.

2 Pole   3Phase (AVR)		kVA @ 0.8 PF, 50Hz		kVA @ 0.8 PF, 60Hz	
MODEL	WEIGHT (kg)	230/400 V	%EFF	277/480 V	%EFF
<b>ET16F-130</b>	30	5.5	80.2	6.6	80.6
<b>ET16F-160</b>	34	6.5	82.3	7.8	82.5
<b>ET20FS-130</b>	44.2	9	81.9	11	83.6
<b>ET20FS-160</b>	51.2	11.5	82.4	14	83.9
<b>ET20F-200</b>	59	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.



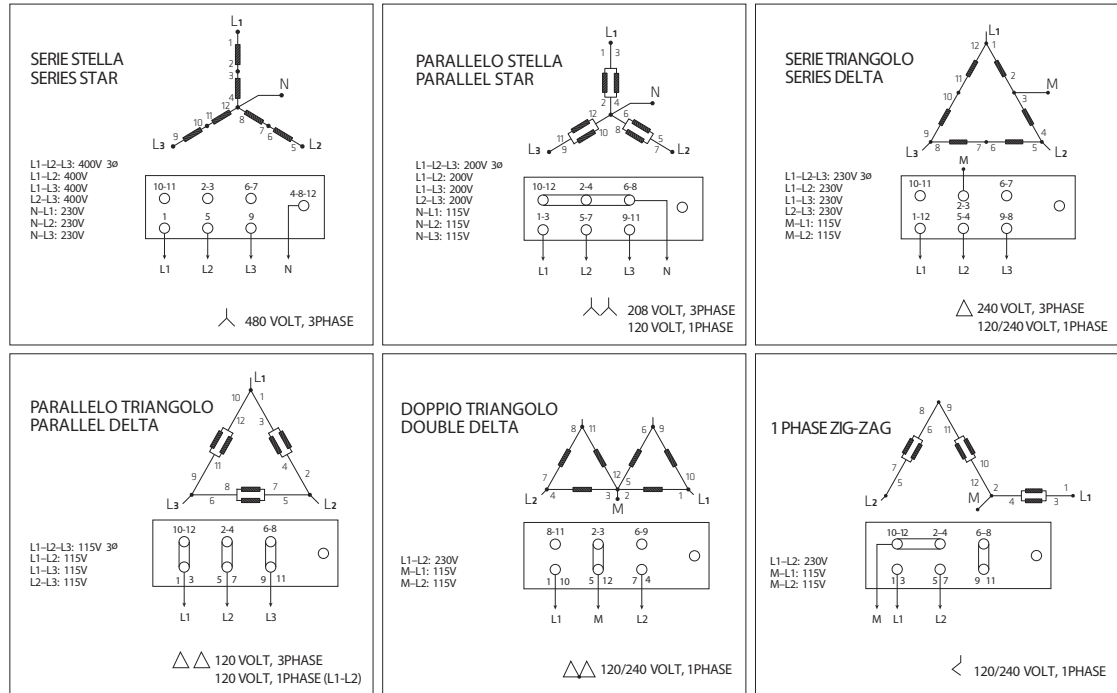
50Hz		Series 3, 28, 31, 32, 34, 38				Series 40, 43, 46			
Series Star	L-L	380	400	415	440	760	800	830	880
	L-N	220	230	240	254	440	460	480	508
Parallel Star	L-L	190	200	208	220	380	400	415	440
	L-N	110	115	120	127	220	230	240	254
Series Delta	L-L	220	230	240	254	440	460	480	508
	L-M	110	115	120	127	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-M	191	200	208	220	380	400	415	440
Single Phase	L-L	220	230	240	254	440	460	480	508
Parallel Zig-Zag	L-M	110	115	120	127	220	230	240	254
Single Phase	L-L	220	230	240	254	440	460	480	508
	Double Delta	L-M	110	115	120	127	220	230	240

In case of single phase load, it is important that the phase current does not exceed the nominal value.

In three phase zig-zag connection the rated power must be multiplied by 0.866.

# 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				Series 40, 43, 46			
Series Star	L-L	415	440	460	480	830	880	920	960
	L-N	240	254	266	277	480	508	530	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-M	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-M	207	220	230	240	415	440	460	480
Single Phase Parallel Zig-Zag	L-L	240	254	266	277	440	460	480	554
	L-M	120	127	133	139	220	230	240	277
Single Phase Double Delta	L-L	240	254	266	277	440	460	480	554
	L-M	120	127	133	139	220	230	240	277

In case of single phase load, it is important that the phase current does not exceed the nominal value.

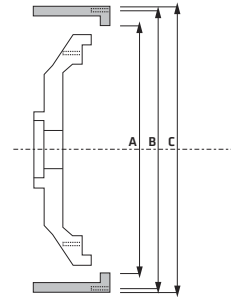
In three phase zig-zag connection the rated power must be multiplied by 0.866.

# SAE Flywheel Housing Dimensions

Mounting Arrangements.

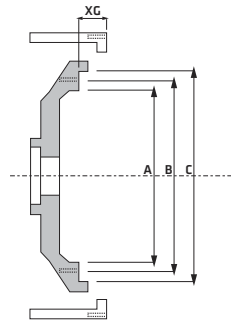
S.A.E. Flywheel Housing Dimensions, mm (in)

SAE No.	A	B	C	Holes	Size
00	787,4 (31)	850,9 (33.5)	883 (34.75)	16	M12 (1/2)
0	647,7 (25.5)	679,5 (26.75)	711 (28)	16	M12 (1/2)
1/2	584,2 (23)	619,1 (24 3/8)	648 (25.5)	12	M12 (1/2)
1	511,2 (20 1/8)	530,2 (20 7/8)	552 (21.75)	12	M10 (7/16)
2	447,7 (17 5/8)	466,7 (18 3/8)	489 (19.25)	12	M10 (3/8)
3	409,6 (16 1/8)	428,6 (16 7/8)	451 (17.75)	12	M10 (3/8)
4	362 (14.25)	381 (15)	403 (15 7/8)	12	M10 (3/8)
5	314,3 (12 3/8)	333,4 (13 1/8)	356 (14)	8	M10 (3/8)



S.A.E. Flywheel Dimensions, mm (in)

Flywheel	A	B	C	XG	Holes	Size
21	584,2 (23)	641,35 (25.25)	673,1 (26.5)	0	12	M16 (5/8)
18	498,5 (19 5/8)	542,35 (21 3/8)	571,5 (22.5)	15,7 (5/8)	6	M16 (5/8)
14	409,6 (16 1/8)	438,15 (17.25)	466,72 (18 3/8)	25,4 (1)	8	M12 (1/2)
11 1/2	314,3 (12.375)	333,37 (13.125)	352,42 (13 7/8)	39,6 (1 9/16)	8	M10 (3/8)
10	276,2 (10 7/8)	295,27 (11 5/8)	314,32 (12 3/8)	53,8 (2 1/8)	8	M10 (3/8)
8	225,4 (8 7/8)	244,47 (9 5/8)	263,52 (10 3/8)	62 (2 7/16)	6	M10 (3/8)
7 1/2	206,4 (8 1/8)	222,25 (8.75)	241,3 (9 1/2)	30,2 (1 3/16)	8	M8 (5/16)
6 1/2	184,2 (7.25)	200 (7 7/8)	215,9 (8 1/2)	30,2 (1 3/16)	6	M8 (5/16)



Available Mounting Arrangements

Adaptor	Coupling	ECP3	ECP28	ECO32	ECP34	ECO38N	ECO40	ECO43N	ECO46	NPE 32
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			•	•	•	•	•		
1/2	14					•	•	•		
	18						•	•		
0	14					•	•	•		
	18						•	•	•	
00	18						•	•	•	
	21							•	•	



# Altitude Derations/Environmental

**Temperature & Altitude**

**Environmental Concerns**

**Humidity & Moisture**

## 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 on our; standard, standard +, grey, total and total + systems. Please note on some specific models a slight power de-rate is considered when the total systems are applied.

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

Altitude (meters)	Ambient Temperature (°C)					
	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







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