Technical Guide

SENATOR

415 V Electricity Supply

Air Compressor Model	Main Motor Rating (kW)	Main Motor Starting Method	Supply Voltage and Type	Maximum Running Current (A)	Minimum Circuit Breaker Rating (A)	Circuit Breaker Tripping Curve
CS4	4	Star-Delta	415V 3P+N+E	11.7	20	C or D
CS4	4	Star-Delta	415V 3P+E 240V A+N+E	9.6 2.1	16 6	C or D C or D
ES4	4	Star-Delta	415V 3P+E	9.6	16	C or D
GS4	4	Star-Delta	415V 3P+E	9.3	16	C or D
P30S	4	Direct On Line	415V 3P+E	9.0	16	D
Z25	4	Direct On Line	415V 3P+E	8.6	16	D
CS6	5.5	Star-Delta	415V 3P+N+E	17.5	25	C or D
CS6	5.5	Star-Delta	415V 3P+E 240V A+N+E	13.6 3.9	20 10	C or D C or D
ES5	5.5	Star-Delta	415V 3P+E	13.6	20	C or D
GS6	5.5	Star-Delta	415V 3P+E	12.5	20	C or D
P40S	5.5	Direct On Line	415V 3P+E	12.7	20	D
Z35	5.5	Direct On Line	415V 3P+E	12.4	20	D
CS8	7.5	Star-Delta	415V 3P+N+E	21.7	32	C or D
CS8	7.5	Star-Delta	415V 3P+E 240V A+N+E	17.8 3.9	25 10	C or D C or D
CSV8	7.5	VSD	415V 3P+N+E	21.7	32	B, C or D
CSV8	7.5	VSD	415V 3P+E 240V A+N+E	17.8 3.9	25 10	B, C or D C or D
ES7	7.5	Star-Delta	415V 3P+E	17.8	25	C or D
ESV7	7.5	VSD	415V 3P+E	17.8	25	B, C or D
GS8	7.5	Star-Delta	415V 3P+E	16.0	25	C or D
GSV8	7.5	VSD	415V 3P+E	17.5	25	B, C or D
Z50	7.5	Direct On Line	415V 3P+E	16.4	25	D
ZS100T	7.5	Direct On Line	415V 3P+E	17.8	25	D
CS11	11	Star-Delta	415V 3P+N+E	30.2	50	C or D
CS11	11	Star-Delta	415V 3P+E 240V A+N+E	25.9 4.3	40 10	C or D C or D
CSV11	11	VSD	415V 3P+N+E	30.7	40	B, C or D
CSV11	11	VSD	415V 3P+E 240V A+N+E	26.4 4.3	32 10	B, C or D C or D
ES11	11	Star-Delta	415V 3P+E	25.9	32	C or D
ESV11	11	VSD	415V 3P+E	26.4	32	B, C or D

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GS11	11	Star-Delta	415V 3P+E	23.4	32	C or D
GSV11	11	VSD	415V 3P+E	24.9	32	B, C or D
ZS150T	11	Star-Delta	415V 3P+E	26.7	32	C or D
CS15	15	Star-Delta	415V 3P+N+E	39.5	63	C or D
CS15	15	Star-Delta	415V 3P+E 240V A+N+E	35.2 4.3	50 10	C or D C or D
CSV15	15	VSD	415V 3P+N+E	39.8	63	B, C or D
CSV15	15	VSD	415V 3P+E 240V A+N+E	35.5 4.3	50 10	B, C or D C or D
ES15	15	Star-Delta	415V 3P+E	35.2	50	C or D
GS15	15	Star-Delta	415V 3P+E	31.5	50	C or D
GSV15	15	VSD	415V 3P+E	33.1	50	B, C or D
ESV15	15	VSD	415V 3P+E	35.5	50	B, C or D
ZS200T	15	Star-Delta	415V 3P+E	36.0	50	C or D
LS18	18.5	Star-Delta	415V 3P+E	37.8	50	C or D
LSV18	18.5	VSD	415V 3P+E	40.9	50	B, C or D
LS22	22	Star-Delta	415V 3P+E	44.6	63	C or D
LSV22	22	VSD	415V 3P+E	48.8	63	B, C or D
ZS300	22	Star-Delta	415V 3P+E	45.5	63	C or D
LS30	30	Star-Delta	415V 3P+E	60.5	80	C or D
LSV30	30	VSD	415V 3P+E	61.0	80	B, C or D
ZS400	30	Star-Delta	415V 3P+E	61.2	80	C or D
LS37	37	Star-Delta	415V 3P+E	73.2	100	C or D
LSV37	37	VSD	415V 3P+E	73.6	100	B, C or D
ZS500	37	Star-Delta	415V 3P+E	74.6	100	C or D
LS45	45	Star-Delta	415V 3P+E	88.2	125	C or D
LSV45	45	VSD	415V 3P+E	88.7	125	B, C or D
LS55	55	Star-Delta	415V 3P+E	108	160	C or D
LSV55	55	VSD	415V 3P+E	109	160	B, C or D
LS75	75	Star-Delta	415V 3P+E	144	200	C or D
LSV75	75	VSD	415V 3P+E	145	200	B, C or D

Notes

1. All electrical installations must be performed by a licensed electrician in accordance with the prevailing AS/NZS 3000 Wiring Rules.

2. The power supply must be stabilised at the rated voltage and 50 Hertz frequency. A portable electric generator is not recommended for powering the compressor unless it has ample generating capacity to supply both the requisite starting and running current demands without appreciable voltage or frequency drop.

3. A separate electricity supply circuit is recommended for the compressor to avoid motor current overload due to excessive voltage drop or an unbalanced three-phase condition caused by other electrical equipment operating in parallel.

4. The circuit breaker information provided above is a general guide only for dedicated supply to the compressor.

5. The maximum running current may exceed the specified value in practice if the electricity supply voltage or power factor are below their rated levels.

6. Senator CS and CSV compressors require either (i) a 415 V three-phase + neutral power supply or (ii) a 415 V three-phase power supply and a 240 V single-phase power supply as specified in the above table.

7. For additional protection against electric shock, it is recommended to include a fixed setting residual current device (RCD) with rated operating residual current not exceeding 30 mA. Special RCD's should be considered for use with high current or variable speed drives (VSD's) to prevent nuisance tripping.