



**Amb. Temp. : 50°C**

BRAND	FRAME	POLE	VOLTS	C/S
<b>CHALLENGER<sup>++</sup></b>	SE90S-SE315L	4	415	50

FRAME SIZE	SE90S	SE90L	SE100L	SE112M	SE132S	SE132M	SE160M	SE160M	SE160L
OUTPUT (KW/HP)	1.1/ 1.5	1.5/ 2.0	2.2/ 3.0	3.7/ 5.0	5.5/7.5	7.5/ 10	9.3/ 12.5	11/ 15	15/ 20
F.L.RPM	1420	1430	1430	1440	1450	1450	1465	1455	1460
F.L.AMPS	2.35	3.15	4.0	6.9	10.0	13.4	16.5	19.6	27.3
EFFICIENCY ( % )	100%*	83.8	85	87	88.3	89.2	90.5	91	91.8
	75%	83.8	85	87	88.3	89.2	90.5	91	91.8
	50%	81.0	82	85	86.0	86.5	88.0	90	91.0
POWER FACTOR	100%	0.78	0.78	0.84	0.85	0.85	0.86	0.86	0.83
	75%	0.69	0.69	0.80	0.81	0.80	0.84	0.82	0.81
	50%	0.55	0.55	0.65	0.69	0.68	0.75	0.73	0.72
APPROX. NO LOAD CURRENT (AMPS)	1.8	2.2	2.5	3.5	5.2	5.5	7.0	7.0	11.5
STARTING CURRENT ( X FLC )	600	600	700	700	600	600	650	600	600
STARTING TORQUE (X FLT)	220	240	270	200	220	220	260	230	180
PULL OUT TORQUE (XFLT)	280	300	360	300	270	270	300	270	270
SAFE STALL TIME -COLD/ HOT(sec.)	10/8	10/8	12/10	12/10	10/8	10/8	28/15	28/15	28/15
ROTOR GD <sup>2</sup> (Kg-m <sup>2</sup> )	0.0156	0.0187	0.0516	0.051	0.146	0.137	0.238	0.238	0.282
APPROX. MOTOR WT. (KG)	25	26	40	56	71	96	136	136	165
TERMINAL BOX POSITION **	SIDE	SIDE	SIDE	TOP	SIDE	TOP	SIDE	SIDE	TOP

\* EFF.1 as per IS:12615-2004/CEMEP

\*\* TOP T.Box can also be provided, in case of motor with SIDE T.Box for frame 160 & above - if reqd.

ISSUE DATE	A 03.07.07	B 14.12.07	C 09.10.09			
SIGN. NAME DATE	M.MANDAL 09.10.2009		K.G.CHOUDHURY 09.10.2009		RAJIV RANJAN 09.10.2009	
	PREPARED BY		CHECKED BY		APPROVED BY	

Note :- 1) All figures are subject tolerance as per IS:325

2) Efficiency figures are without oil seal during testing.



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BRAND	FRAME	POLE	VOLTS	C/S
<b>CHALLENGER<sup>++</sup></b>	SE90S-SE315L	4	415	50

FRAME SIZE	SE180M	SE180L	SE200L	SE225S	SE225M	SE250M	SE280S	SE280M	
OUTPUT (KW/HP)	18.5/ 25	22/ 30	30/ 40	37/ 50	45/60	55/75	75/100	90/120	
F.L.RPM	1463	1468	1474	1475	1475	1480	1485	1485	
F.L.AMPS	31.7	37.4	50.7	62.2	76.6	94.4	128	151.5	
EFFICIENCY (%)	100%*	92.3	93.0	93.5	94.0	94.0	94.3	94.7	95.0
	75%	92.3	93.0	93.5	94.0	94.0	94.0	94.5	95.0
	50%	91.0	92.5	92.5	92.5	92.5	92.5	93.0	93.5
POWER FACTOR	100%	0.88	0.88	0.88	0.88	0.87	0.86	0.86	0.87
	75%	0.86	0.86	0.86	0.86	0.83	0.84	0.84	0.84
	50%	0.80	0.80	0.81	0.80	0.77	0.76	0.76	0.76
APPROX. NO LOAD CURRENT (AMPS)	12.0	15.0	17.0	24.0	29.0	36.0	<b>50.0</b>	62.0	
STARTING CURRENT ( X FLC )	600	600	600	600	600	600	650	650	
STARTING TORQUE (X FLT)	220	200	200	200	200	220	220	220	
PULL OUT TORQUE (XFLT)	270	270	270	270	270	270	270	270	
SAFE STALL TIME -COLD/ HOT(sec.)	36/19	25/19	32/24	32/24	32/24	25/19	36/27	36/27	
ROTOR GD <sup>2</sup> (Kg-m <sup>2</sup> )	0.552	0.575	0.951	1.141	1.427	3.789	5.846	7.385	
APPROX. MOTOR WT. (KG)	176	236	365	385	415	515	850	940	
TERMINAL BOX POSITION **	SIDE	TOP	TOP	SIDE	SIDE	TOP	SIDE	SIDE	

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<b>CHALLENGER<sup>++</sup></b>	SE90S-SE315L	4	415	50

FRAME SIZE		SE315S	SE315M	SE315M	SE315L
OUTPUT (KW/HP)		110/150	125/167	132/177	160/214
F.L.RPM		1485	1485	1485	1485
F.L.AMPS		183	207	218	264
EFFICIENCY (%)	100%*	95.3	95.6	95.6	95.8
	75%	95.3	95.6	95.6	95.8
	50%	94.5	94.6	94.0	94.5
POWER FACTOR	100%	0.88	0.88	0.88	0.88
	75%	0.82	0.84	0.87	0.83
	50%	0.80	0.82	0.84	0.79
APPROX. NO LOAD CURRENT (AMPS)		70	75	85	105
STARTING CURRENT ( X FLC )		700	650	600	600
STARTING TORQUE (X FLT)		220	220	200	180
PULL OUT TORQUE (XFLT)		280	270	270	270
SAFE STALL TIME -COLD/ HOT(sec.)		29/22	33/25	33/25	33/25
ROTOR GD <sup>2</sup> (Kg-m <sup>2</sup> )		8.205	8.205	9.652	11.2
APPROX. MOTOR WT. (KG)		880	1150	1210	1260
TERMINAL BOX POSITION **		SIDE	SIDE	SIDE	SIDE

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Amendment

Issue : A, Original Issue, Dt. 03.07.07

Issue : B, Company's Name & signatory changed, Dt. 14.12.07

Issue : C, NLA of SE280S/4P75KW will be 50 in place of 60, Dt. 09.10.09