

THE POWER BEHIND THE DRIVE

FRAME 63 TO 355

LOW TENSION TEFC INDUCTION MOTORS



Energy Efficient Motors

INDUCTION
MOTORS



**Crompton
Greaves**

EVERYDAY SOLUTIONS

SPOTLIGHTS

TEFC CAGE MOTORS

- Energy Efficiency level 2 as per IS:12615
- Energy Efficiency as per CEMEP Standards prevalent in Europe
- Sleek and compact design, Improved aesthetics
- 'V' seal arrangement up to 355 frame - Easier assembly of bearing housing
- Integral bearing cover with endshield up to 225 frame
- Larger terminal box for accommodating bigger Aluminium cables
- Sophisticated CNC Machines, Most Advanced Manufacturing Technology & Test Plant - Improved reliability.

STANDARD SPECIFICATIONS

RANGE	0.18 kW to 350 kW (FRAME 63 to 355) Multi speed options are also available
VOLTAGE	415 V +/- 10 %
FREQUENCY	50 Hz +/- 5 %
COMBINED VARIATION	+/- 10 % (ABSOLUTE SUM)
INSULATION	Class 'F' (Temp. rise limited to class 'B') as standard
MOUNTING	Horizontal foot mounting (B3) as per IS :1231.
AMBIENT / TEMPERATURE RISE	50 ⁰ C / 70 ⁰ C
DEGREE OF PROTECTION	IP55 AS PER IS: 4691

BEARING SIZE CHART

FRAME SIZE	DE BEARING	NDE BEARING
SD63	6201ZZ	6201ZZ
SD71	6203ZZ	6203ZZ
SD/ND80	6204ZZ	6204ZZ
SD/ND90S/L	6205ZZ	6205ZZ
SD100L	6206ZZ	6206ZZ
ND100L	6206ZZ	6205ZZ @
SD/ND112M	6306ZZ	6205ZZ @
ND/NC132 S/M	6308ZZ	6208ZZ
SD132 S/M	6308ZZ	6305ZZ
ND160M/L	6309 2Z	6209 2Z
ND180M	6310 2Z	6310 2Z
ND200L	6312 2Z	6312 2Z
ND225M	6313 2Z	6313 2Z
ND250M - 2P	6314 - C4	6314 - C4
ND250M 4P UP	6314 - C3	6314 - C3
ND280S/M 2P POLE	6314 - C4	6314 - C4
ND280S/M 4P & UP	6318 - C3	6318 - C3
ND315M/L-2 POLE	6315 - C4	6315 - C4
ND315L 4P & UP	6319 - C3	6319 - C3
ND355S/M/L/LX 2P	6316 - C4	6316 - C4
ND355S/M/L 4P UP	6321 - C3	6321 - C3
ND355LX 4P UP	6322 - C3	6322 - C3

@ For single shaft extension. For double shaft extension-Bearing Size-6206 ZZ.

Bearing clearance-Motors upto 132M FRAME have normal clearance bearings.

TERMINAL BOX :

TEFC FRAME	MAXIMUM CABLE SIZE		NO. OF MAIN TERMINALS	TERMINAL STUD SIZE		BSC ENTRY	
	DOL	STAR/DELTA		MAIN	EARTH	NOS.	SIZE
SD63-SD71	4CX4mm ²	-	6	M5	M4	1	¾"
SD80 *	4CX4mm ²	-	6	M5	M4	2	¾"
ND80	4CX4mm ²	-	3	M5	M4	1	¾"
ND90S-ND132M	4CX10mm ²	4CX10mm ²	6 #	M6	M5	DOL-1 S/D-2	1"
SD90S-SD100L	4CX10mm ²	-	6	M6	M5	1	1"
NC132S/M	4CX10mm ²	4CX10mm ²	6	M6	M5	DOL-1 S/D-2	1"
ND160-ND200	3CX50mm ²	2X3 C X35mm ²	6	M6	M8	2	1"
ND225 TO ND280	3CX120mm ²	2X3C X95mm ²	6	M8	M12\$	2	1 ½"
ND315S/M/L	3CX300mm ²	2X3 C X 240mm ²	6	M12	M12	2	2"
ND355L/LX	3C x 400 mm ²	2 x 3C x 300 mm ²	6	M16	M12	2	2.5"

* INTEGRAL TERMINAL BOX

3 LEADS UPTO 2.2 kW2 P/4P & 1.5 kW 6P/8P and below, 6 leads for 2.2 kW 6P/8P & above (For ND Frame only)

\$ M12 FOR 250/280 FRAME & M8 FOR ND225 FRAME

PERFORMANCE DATA

PERFORMANCE DATA 3 - PHASE TEFC SCR INDUCTION MOTOR

VOLTAGE : 415 ± 10% V
FREQUENCY : 50 ± 5% Hz
COMBINED : ± 10 % (ABSOLUTE)
VARIATION

TYPE : SQUIRREL CAGE (SCR)
RATING : CONTINUOUS
INSULATION : CLASS 'F' WITH CLASS 'B'
TEMP. RISE

AMBIENT : 50 DEG C
TEMP. RISE (R) : 70 DEG C
DEGREE OF : IP55
PROTECTION

OUTPUT		P O L E	FRAME SIZE	FL RPM	FLC AMPS.	FLT Kg-m	EFFICIENCY (%)			POWER FACTOR			DOL STG.		POT % FLT	GD. ² KGM. ²	NET WT. KG
KW	HP						FL	3/4 LOAD	1/2 LOAD	FL	3/4 LOAD	1/2 LOAD	STG.T % FLT	STG.C % FLC			
0.18	0.25	2	SD63	2700	0.60	0.06	64.0	62.0	58.0	0.79	0.68	0.59	300	500	350	0.001	5.6
		4	SD63	1330	0.60	0.13	64.0	62.0	58.0	0.79	0.73	0.60	200	400	250	0.003	5.6
		6	SD71	900	0.64	0.19	61.0	64.0	60.0	0.68	0.60	0.50	200	400	250	0.004	7.0
0.25	0.33	2	SD63	2700	0.65	0.09	68.0	67.0	63.0	0.79	0.72	0.60	275	500	325	0.001	5.6
		4	SD71	1350	0.73	0.18	68.0	67.0	63.0	0.70	0.64	0.54	225	400	275	0.004	7.0
		6	SD71	890	1.20	0.27	60.0	55.0	48.0	0.60	0.50	0.40	180	400	225	0.004	7.0
		8	SD/ND80	670	1.10	0.36	52.0	46.0	36.0	0.50	0.42	0.32	170	400	200	0.011	10/17
0.37	0.50	2	SD71	2820	0.95	0.13	71.5	70.0	66.00	0.79	0.75	0.68	275	500	325	0.002	7.0
		4	SD71	1400	1.12	0.26	71.5	70.0	66.00	0.65	0.60	0.53	225	500	275	0.004	7.0
		6	SD/ND80	910	1.05	0.40	69.0	68.0	66.0	0.71	0.63	0.52	210	400	250	0.011	10/17
		8	SD/ND90S	680	1.40	0.53	65.0	64.0	60.0	0.57	0.50	0.40	170	400	220	0.015	13/22
0.55	0.75	2	SD71	2800	1.30	0.19	73.0	72.0	68.0	0.81	0.76	0.71	275	500	300	0.002	7.0
		4	SD/ND80	1410	1.45	0.38	73.0	73.0	69.5	0.73	0.67	0.54	200	500	250	0.007	10/17
		6	SD/ND80	910	1.55	0.59	69.0	68.0	66.0	0.71	0.63	0.52	200	400	260	0.011	10/17
		8	SD/ND90L	680	1.75	0.79	69.0	68.0	64.0	0.63	0.54	0.45	150	400	200	0.021	13/22
0.75	1.00	2	SD/ND80	2820	1.65	0.26	77.0	76.0	74.0	0.81	0.73	0.62	250	600	300	0.003	10/17
		4	SD/ND80	1410	1.75	0.52	77.0	76.0	74.0	0.78	0.75	0.64	200	500	250	0.007	10/17
		6	SD/ND90S	935	2.00	0.78	73.0	71.0	69.0	0.72	0.65	0.58	200	400	250	0.015	13/22
		8	SD/ND100L	700	2.55	1.04	70.0	69.0	64.0	0.58	0.51	0.41	175	400	225	0.030	19/32
1.10	1.50	2	SD/ND80*	2820	2.35	0.38	79.0	78.0	76.0	0.82	0.77	0.70	225	600	275	0.004	10/17
		4	SD/ND90S	1415	2.50	0.76	78.0	76.0	74.0	0.78	0.75	0.64	200	500	250	0.014	13/22
		6	SD/ND90L	935	2.85	1.15	76.0	76.0	74.00	0.72	0.66	0.58	200	500	250	0.021	16/25
		8	SD100L/ ND100L	700	3.30	1.53	72.5	71.0	68.0	0.63	0.54	0.44	175	400	225	0.034	19/35
1.50	2.00	2	SD/ND90S	2830	3.10	0.52	80.0	79.0	77.0	0.82	0.77	0.70	225	600	275	0.006	13/22
		4	SD/ND90L	1415	3.20	1.03	80.0	79.0	77.0	0.81	0.78	0.71	200	500	250	0.019	16/25
		6	SD/ND100L	935	3.70	1.56	78.0	78.0	76.0	0.72	0.66	0.58	200	400	250	0.030	19/32
		8	SD112M/ ND112M	700	4.00	2.09	77.0	77.0	75.0	0.68	0.60	0.52	190	400	240	0.057	29/45
2.20	3.00	2	SD/ND90L	2830	4.60	0.76	81.0	80.0	78.0	0.82	0.77	0.70	250	600	300	0.008	16/25
		4	SD/ND100L	1440	4.50	1.49	82.0	81.0	79.0	0.82	0.78	0.72	200	600	250	0.030	19/32
		6	SD/ND112M	935	5.10	2.29	80.0	80.0	78.0	0.75	0.71	0.63	200	500	250	0.048	29/42
		8	SD/ND132S	710	5.40	3.02	78.0	78.0	76.0	0.73	0.68	0.61	180	450	230	0.174	42/68
3.00	4.00	2	SD/ND100L	2865	6.00	1.03	83.0	82.0	80.0	0.85	0.81	0.73	250	600	300	0.022	19/32
		4	SD/ND100L	1425	6.10	2.05	83.0	82.0	80.0	0.82	0.78	0.72	200	600	250	0.034	19/36
		6	SD/ND132S	940	6.30	3.10	84.0	83.0	80.0	0.79	0.75	0.68	200	500	250	0.174	42/68
		8	SD/ND132M	710	7.00	4.17	80.0	79.0	77.0	0.74	0.70	0.62	170	500	220	0.214	45/79
3.70	5.00	2	SD/ND100L	2840	7.20	1.25	84.5	84.3	82.0	0.85	0.81	0.73	250	600	300	0.022	19/36
		4	SD/ND112M	1430	7.40	2.50	85.0	85.0	83.0	0.82	0.78	0.72	200	600	250	0.052	29/42
		6	SDND132S	950	7.70	3.79	85.0	84.0	82.0	0.79	0.73	0.63	200	600	250	0.174	42/68
		8	SD/ND132M	710	8.40	5.08	83.0	83.0	81.0	0.74	0.70	0.62	180	600	230	0.214	45/79
5.50	7.50	2	ND112M*	2880	10.00	1.86	86.0	86.0	84.0	0.89	0.85	0.80	250	650	300	0.034	45.0
		2	SD132S	2865	10.50	1.86	86.0	85.0	83.0	0.85	0.82	0.76	200	600	300	0.034	42.0
		4	SD/ND132S	1450	10.10	3.69	86.0	85.0	83.0	0.88	0.85	0.75	225	600	275	0.131	42/68
		6	SD/ND132M*	950	11.30	5.64	85.0	84.0	82.0	0.80	0.75	0.68	200	600	250	0.214	45/79
7.50	10.00	2	SD/ND132S	2880	13.30	2.53	88.0	88.0	86.0	0.89	0.85	0.80	250	600	300	0.062	45/68
		4	SD/ND132M	1455	13.60	5.02	87.0	86.0	84.0	0.88	0.85	0.75	225	600	275	0.161	45/79
9.30	12.50	2	ND132M	2890	16.70	3.13	88.0	87.0	85.0	0.89	0.85	0.80	250	700	300	0.076	79.0
9.30	12.50	4	ND132M	1460	17.50	6.25	88.5	88.5	86.5	0.84	0.81	0.73	200	600	250	0.310	82.0

PERFORMANCE DATA

OUTPUT		P O L E	FRAME SIZE	FL RPM	FLC AMPS.	FLT Kg-m	EFFICIENCY (%)			POWER FACTOR			DOL STG.		POT % FLT	GD. ² KGM. ²	NET WT. kg
kW	HP						FL	3/4 LOAD	1/2 LOAD	FL	3/4 LOAD	1/2 LOAD	STG.T % FLT	STG.C % FLC			
3.70	5.00	8	ND160M	710	8.0	5.08	83.0	83.0	81.0	0.74	0.70	0.62	150	500	200	0.46	120
4.0	5.5	8	ND160M	710	8.0	5.48	83.0	83.0	81.0	0.74	0.70	0.62	150	500	200	0.46	121
5.50	7.50	6	ND160M	970	11.0	5.52	86.0	86.0	84.0	0.80	0.76	0.68	200	550	250	0.46	120
		8	ND160M	710	12.0	7.55	85.0	85.0	83.0	0.74	0.70	0.62	150	500	200	0.46	120
7.50	10.00	4	ND160M	1460	14.0	5.00	87.0	87.0	85.0	0.85	0.81	0.73	225	600	275	0.31	120
		6	ND160M	975	15.0	7.49	87.5	87.0	85.0	0.80	0.76	0.68	200	550	250	0.46	120
		8	ND160L	710	16.0	10.29	85.0	85.0	83.0	0.76	0.72	0.64	150	500	200	0.64	146
9.3	12.5	6	ND160L	975	18.0	9.29	87.5	87.0	84.0	0.80	0.76	0.68	200	550	250	0.59	146
		8	ND180M	720	20.0	12.58	86.0	86.0	84.0	0.74	0.70	0.60	175	500	225	0.99	174
11	15	2	ND160M	2920	20.0	3.67	89.0	88.0	86.0	0.88	0.86	0.78	250	650	300	0.13	120
		4	ND160M	1460	21.0	7.34	89.0	89.0	86.0	0.82	0.79	0.70	200	600	250	0.36	120
		6	ND160L	975	22.0	10.99	88.0	87.5	86.0	0.80	0.76	0.68	200	550	250	0.64	146
		8	ND180L	720	24.0	14.88	87.0	87.0	85.0	0.74	0.70	0.60	175	500	225	1.16	205
15	20	2	ND160M	2920	26.0	5.00	89.5	89.5	87.5	0.88	0.86	0.79	250	650	300	0.17	120
		4	ND160L	1460	27.0	10.01	90.0	90.0	88.0	0.85	0.83	0.75	200	600	250	0.47	146
		6	ND180L	975	29.0	14.98	90.0	90.0	88.0	0.79	0.73	0.66	225	600	275	1.16	205
		8	ND200L	725	33.0	20.15	88.5	88.5	86.5	0.71	0.65	0.55	225	500	275	2.14	270
18.5	25	2	ND160L	2920	32.0	6.17	90.0	90.0	88.0	0.88	0.86	0.79	275	650	325	0.21	146
		4	ND180M	1475	33.0	12.22	92.0	92.0	90.0	0.84	0.80	0.72	200	600	250	0.81	170
		6	ND200L	975	34.0	18.48	91.1	91.1	89.9	0.84	0.82	0.73	200	550	250	1.69	270
		8	ND225S	725	39.0	24.85	89.0	89.0	87.0	0.75	0.71	0.63	175	500	225	3.24	345
22	30	2	ND180M	2930	41.0	7.31	91.0	91.0	89.0	0.83	0.80	0.72	225	600	275	0.44	164
		4	ND180L	1475	40.0	14.53	92.0	92.0	90.0	0.84	0.80	0.72	200	600	250	0.95	205
		6	ND200L	975	40.0	21.98	91.5	91.5	90.1	0.84	0.82	0.78	200	550	250	2.04	270
		8	ND225M	725	46.0	29.56	89.0	89.0	87.0	0.75	0.71	0.63	175	550	225	3.61	375
30	40	2	ND200L	2950	51.0	9.91	91.5	91.5	90.0	0.90	0.89	0.87	200	600	250	0.80	270
		4	ND200L	1475	51.0	19.81	92.0	92.0	90.2	0.89	0.86	0.78	250	600	300	1.62	270
		6	ND225M	980	53.0	29.82	92.0	92.0	90.5	0.85	0.82	0.73	200	550	250	3.61	375
		8	ND250M	735	61.0	39.76	91.0	90.5	88.5	0.75	0.71	0.63	175	550	225	4.82	465
37	50	2	ND200L	2950	62.0	12.22	92.5	92.0	90.0	0.90	0.89	0.87	200	600	250	0.89	270
		4	ND225S	1480	63.0	24.35	92.5	92.5	91.6	0.89	0.86	0.78	250	600	300	2.64	345
		6	ND250M	980	66.0	36.77	93.0	93.0	92.0	0.84	0.81	0.72	250	600	300	4.82	465
		8*	ND250M	735	76.0	49.03	90.5	90.5	88.5	0.75	0.71	0.63	200	500	250	4.82	500
		8	ND280S	735	75.0	49.03	91.5	91.5	89.5	0.75	0.71	0.63	200	500	250	8.01	600
45	60	2	ND225M	2955	73.0	14.83	92.6	92.0	90.0	0.94	0.92	0.88	225	650	275	1.87	375
		4	ND225M	1480	76.0	29.61	93.0	93.0	91.5	0.89	0.86	0.78	250	600	300	3.13	375
		6*	Nd250m	980	76.0	44.72	93.0	93.0	91.0	0.84	0.81	0.72	250	600	300	4.82	500
		6	ND280S	980	79.0	44.72	93.0	93.0	91.0	0.85	0.82	0.73	250	600	300	8.01	600
		8	ND280M	725	91.0	60.46	92.0	92.0	90.5	0.75	0.71	0.63	175	500	225	9.89	630
55	75	2	ND250M	2955	87.0	18.13	93.5	93.0	90.5	0.94	0.92	0.88	175	600	225	1.79	465
		4	ND250M	1475	92.0	36.32	93.5	93.5	92.0	0.89	0.86	0.82	200	600	250	3.45	465
		6	ND280M	980	95.0	54.66	93.5	93.5	92.5	0.86	0.82	0.74	175	600	225	9.89	630
		8*	ND280M	735	110.0	72.88	92.5	92.5	91.0	0.75	0.71	0.63	175	600	225	9.89	700
		8	ND315S	740	113.0	72.39	93.0	93.0	91.5	0.73	0.66	0.56	200	550	300	14.12	900
75	100	2*	ND250M	2955	88.0	24.72	93.7	93.0	91.3	0.94	0.92	0.88	175	600	225	2.79	500
		2	ND280S	2975	124.0	24.55	93.6	93.5	92.0	0.90	0.86	0.78	225	600	275	2.79	600
		4*	ND250M	1475	125.0	49.53	93.5	93.5	92.0	0.89	0.86	0.82	200	600	250	3.80	520
		4	ND280S	1480	123.0	49.36	94.0	94.0	2.5	0.90	0.88	0.84	250	600	300	7.21	600
		6*	ND280M	980	129.0	74.54	93.8	93.8	92.5	0.86	0.82	0.74	175	600	225	9.89	700
		6	ND315S	987	129.0	74.01	94.0	94.0	92.5	0.83	0.80	0.72	250	600	300	14.12	900
		8	ND315M	740	153.0	98.72	93.5	93.5	91.5	0.73	0.66	0.56	200	600	250	18.98	950
90	120	2	ND280M	2975	148.0	29.47	94.2	94.0	92.5	0.90	0.86	0.78	225	600	275	3.4	630
		4	ND280M	1480	147.0	59.23	94.5	94.5	92.5	0.90	0.88	0.84	250	600	300	8.26	630
		6	ND315M	987	155.0	88.81	94.2	94.2	93.5	0.85	0.82	0.71	225	600	275	17.00	950
		8*	ND315M	740	171.0	118.46	94.0	94.0	92.0	0.78	0.74	0.66	250	600	300	16.99	1130
		8	ND315L	740	178.0	118.46	94.0	94.0	92.0	0.76	0.72	0.64	200	500	250	29.85	1130

PERFORMANCE DATA

OUTPUT		P O L E	FRAME SIZE	FL RPM	FLC AMPS.	FLT Kg-m	EFFICIENCY (%)			POWER FACTOR			DOL STG.		POT % FLT	GD. ² KGM. ²	NET WT. kg
kW	HP						FL	3/4 LOAD	1/2 LOAD	FL	3/4 LOAD	1/2 LOAD	STG.T % FLT	STG.C % FLC			
110	150	2	ND315S	2965	173.0	36.13	94.0	94.0	92.5	0.94	0.91	0.84	200	600	250	5.82	900
		4*	ND280M	1480	180.0	72.39	94.3	94.3	92.3	0.90	0.86	0.78	250	600	300	8.26	660
		4	ND315S	1485	176.0	72.00	94.5	94.5	92.0	0.92	0.88	0.80	225	600	275	11.62	900
		6	ND315M	987	188.0	108.55	94.5	94.5	93.5	0.86	0.82	0.72	200	600	250	18.98	950
		8*	ND315M	740	209.0	131.62	94.0	94.0	92.0	0.78	0.74	0.66	200	250	250	29.85	1200
		8	ND315L	740	217.0	144.78	94.2	94.0	92.0	0.75	0.72	0.68	250	600	300	29.85	1130
132	180	2	ND315M	2965	208.0	43.36	94.8	94.0	92.5	0.94	0.90	0.82	200	600	250	7.97	950
		4	ND315M	1485	210.0	86.40	95.0	95.0	94.0	0.92	0.88	0.80	225	600	275	13.9	950
		6	ND315L	985	226.0	130.53	95.0	94.5	93.5	0.86	0.82	0.74	250	600	300	29.85	1130
		8	ND315L	740	259.0	173.74	94.5	94.5	92.5	0.75	0.72	0.68	225	600	275	29.85	1130
150	200	2	ND315L	2975	235.0	49.11	95.0	94.5	92.5	0.94	0.92	0.90	175	600	225	16.37	1130
		4	ND315M	1488	239.0	98.19	95.2	95.0	94.0	0.92	0.88	0.80	225	600	275	15.61	950
		6	ND315L	990	257.0	147.58	95.0	94.5	93.5	0.86	0.82	0.74	250	600	300	29.85	1130
		8	ND355L	740	296.0	197.43	95.0	93.0	91.0	0.75	0.72	0.68	150	600	200	33.16	2100
160	215	2	ND315L	2975	249.0	52.38	95.0	94.5	93.5	0.94	0.92	0.90	175	600	225	16.37	1130
		4	ND315L	1490	260.0	104.59	95.3	95.3	94.0	0.90	0.86	0.78	200	600	250	24.97	1130
		6	ND315L	990	273.0	157.41	95.0	94.5	93.5	0.86	0.82	0.74	250	600	300	29.85	1130
		8	ND355L	740	316.0	210.59	95.0	93.0	91.0	0.75	0.72	0.68	175	600	225	36.73	2100
180	240	2	ND315L	2975	280.0	58.93	95.0	94.5	93.5	0.94	0.92	0.90	200	600	250	16.37	1130
		4	ND315L	1490	293.0	117.66	95.3	95.0	94.0	0.90	0.88	0.84	225	600	275	24.97	1130
		6	ND355L	990	315.0	177.09	95.0	93.5	91.0	0.84	0.81	0.72	225	600	275	33.16	2100
		8	ND355LX	745	353.0	235.33	95.0	94.5	92.5	0.75	0.72	0.68	135	500	185	61.40	2150
200	270	2	ND315L	2975	310.0	65.48	95.5	95.5	94.0	0.94	0.92	0.90	200	600	250	16.37	1130
		4	ND315L	1490	324.0	130.74	95.5	95.5	94.0	0.90	0.88	0.84	225	600	275	24.97	1130
		6	ND355LX	991	351.0	196.57	95.0	94.0	91.0	0.84	0.81	0.72	150	600	200	55.26	2150
		8	ND355LX	745	403.0	261.48	94.5	94.5	92.5	0.73	0.66	0.56	135	500	185	61.40	2150
225	302	2	ND355L	2980	341.0	73.54	95.5	95.5	94.0	0.96	0.92	0.88	175	600	225	25.70	2100
		4	ND355L	1490	372.0	147.08	95.5	95.5	94.0	0.88	0.86	0.82	185	600	235	35.57	2100
		6	ND355LX	991	394.0	221.14	94.5	94.5	92.0	0.84	0.81	0.73	150	600	200	61.40	2150
		8	ND355LX	745	454.0	294.16	94.5	94.5	92.5	0.70	0.64	0.60	135	500	185	61.40	2150
250	335	2	ND355LX	2980	379.0	81.71	95.5	95.0	93.5	0.96	0.92	0.88	175	650	225	25.70	2150
		4	ND355L	1490	413.0	163.42	95.7	95.7	94.5	0.88	0.86	0.82	185	600	235	35.57	2100
		6	ND355LX	993	434.0	245.22	95.5	95.0	94.0	0.84	0.81	0.73	150	600	200	61.40	2150
275	369	2	ND355LX	2980	417	89.88	95.5	95.0	93.5	0.96	0.92	0.88	175	650	225	25.70	2150
		4	ND355LX	1490	454	179.76	95.7	95.7	94.5	0.88	0.86	0.82	185	600	235	35.57	2150
		6	ND355LX	990	477.0	270.56	95.5	95.0	94.0	0.84	0.81	0.73	150	65	200	39.52	2150
315	425	2	ND355LX	2980	478.0	102.96	95.5	95.5	94.0	0.96	0.92	0.88	200	600	250	30.70	2150
		4	ND355LX	1492	496.0	205.64	96.0	96.0	94.5	0.92	0.90	0.88	175	600	225	39.52	2150
350	470	2*	ND355LX	2980	543.0	114.39	95.5	95.5	93.5	0.94	0.90	0.86	175	700	225	30.38	2150
350		4*	ND355LX	1485	557.0	229.56	95	95	93	0.92	0.90	0.88	150	650	200	39.52	2150

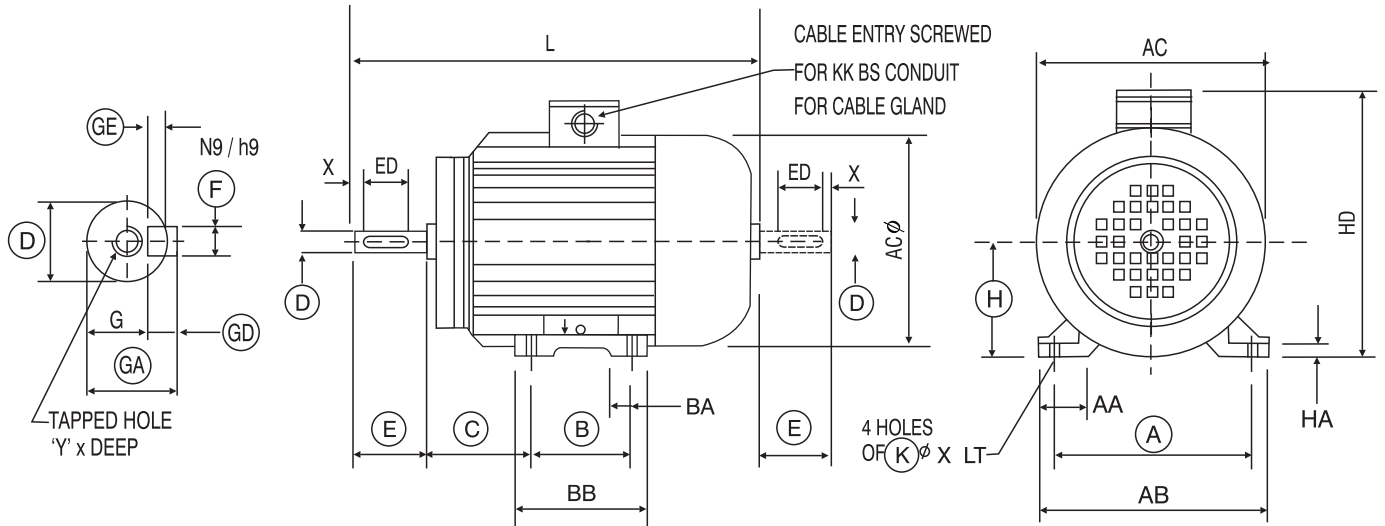
OUTPUT		P O L E	FRAME SIZE	FL RPM	FLC AMPS.	FLT Kg-m	EFFICIENCY (%)			POWER FACTOR			DOL STG.		POT % FLT	GD. ² KGM. ²	NET WT. kg
kW	HP						FL	3/4 LOAD	1/2 LOAD	FL	3/4 LOAD	1/2 LOAD	STG.T % FLT	STG.C % FLC			
1.1	1.5	2	SD/ND90S	2830	2.3	0.4	77.0	72.0	64.0	0.82	0.76	0.68	250	600	300	0.006	13/22
5.5	7.5	2	ND132S	2865	10.5	1.9	84.0	82.0	79.0	0.89	0.84	0.76	250	600	300	0.062	68

NOTE : All performance figures are subject to tolerances as per IEC - 34 or IS 325 - 1996.

FL - Full Load, STG = Starting, C - Current, T - Torque, DOL - Direct on line, S/D - Star/Delta

* With class 'F' temperature rise. (90° C rise)

OUTLINE DIMENSION DRAWING FOR 3 PHASE SQUIRREL CAGE TEFC FOOT MOUNTED ALUMINIUM BODY INDUCTION MOTORS FOR SD63 TO SD132 FRAMES



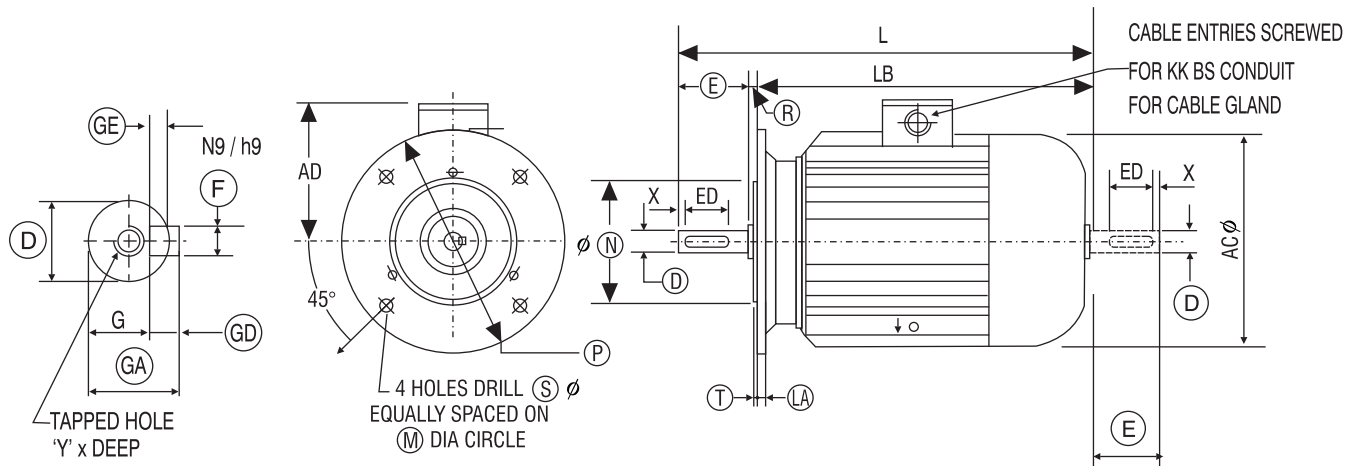
KEY		KEY WAY		SHAFT				FIXING	
GD	F	ED	F	GE	D				H
h11	h9		N9	-	k6	j6		H14	
6 to 10	3 to 6	3 to 6	8 to 10	4 & ABOVE	upto 3.5	18 to 30	10 to 18	12	0
- 0.090	0	0	0	0	0	0.004	0.003	0	0
	0.030	0.030	0.030	0.020	0.100	0.009	0.003	0.036	0
	0.036	0.030	0.036	0.030	0.002	0.004	0.003	0.043	0

FRAME SIZE	FOOT FIXING											SHAFT AND KEY										YxDEEP	OVERALL(MAX)			KK
	A	B	C	H	AA	AB	BA	BB	HA	K	LT	D	E	ED	F	G	GA	GD	GE	X	AC		L	HD		
SD63	100	80	40	63	25.5	122	30	96	9	7∅	-	11	23	18	4	8.5	12.5	4	2.5	2.5	M4 x 10	125	210	160	3/4"	
SD71	112	90	45	71	30	136	30	110	9	7∅	-	14	30	25	5	11	16	5	3	2.5	M5 x 12.5	145	250	170	3/4"	
SD80	125	100	50	80	28	152	35	125	11	10	14	19	40	27	6	15.5	21.5	6	3.5	-	M6 x 16	165	285	200	3/4"	
SD90S SD90L	140	100 125	56	90	40	170	30	126 151	13	10	15	24	50	36	8	20	27	7	4	-	M8 x 19	180	310 335	226	1"	
SD100L	160	140	63	100	48	192	35	170	13	12	16	28	60	44	8	24	31	7	4	-	M10x22	200	360	245	1"	
SD112M	190	140	70	112	50	222	35	170	13	12	16	28	60	44	8	24	31	7	4	-	M10x22	222	380	270	1"	
SD132S SD132M	216	140 178	89	132	52	252	55	178 216	13	12	16	38	80	60	10	33	41	8	5	-	M12x28	260	475	310	1"	

- DIMENSIONS COMPLY WITH IS : 1231 AND ARE IN MM., EXCEPT CONDUIT ENTRY.
- TERMINAL BOX CAN BE TURNED THROUGH 360° IN STEP OF 90°, EXCEPT FOR FRAME SD80 WHICH HAS TERMINAL BOX INTEGRAL WITH BODY & CABLE ENTRY ON EITHER SIDE.
- SD63 & SD71 KEY WAY IS CLOSED WHILE FOR SD80 AND ABOVE FRAMES KEYWAY IS OPEN ON SHAFT.
- ALL DIMENSIONS ARE SUBJECTED TO CONFIRMATION.
- PLASTIC T.B. IS USED FOR SD63 TO SD80 FRAME, AND AL T.B. FOR SD90 TO SD132 FRAME.

SD6350

OUTLINE DIMENSION DRAWING FOR 3 PHASE SQUIRREL CAGE TEFC FLANGE MOUNTED ALUMINIUM BODY INDUCTION MOTORS FOR SD63 TO SD132 FRAMES



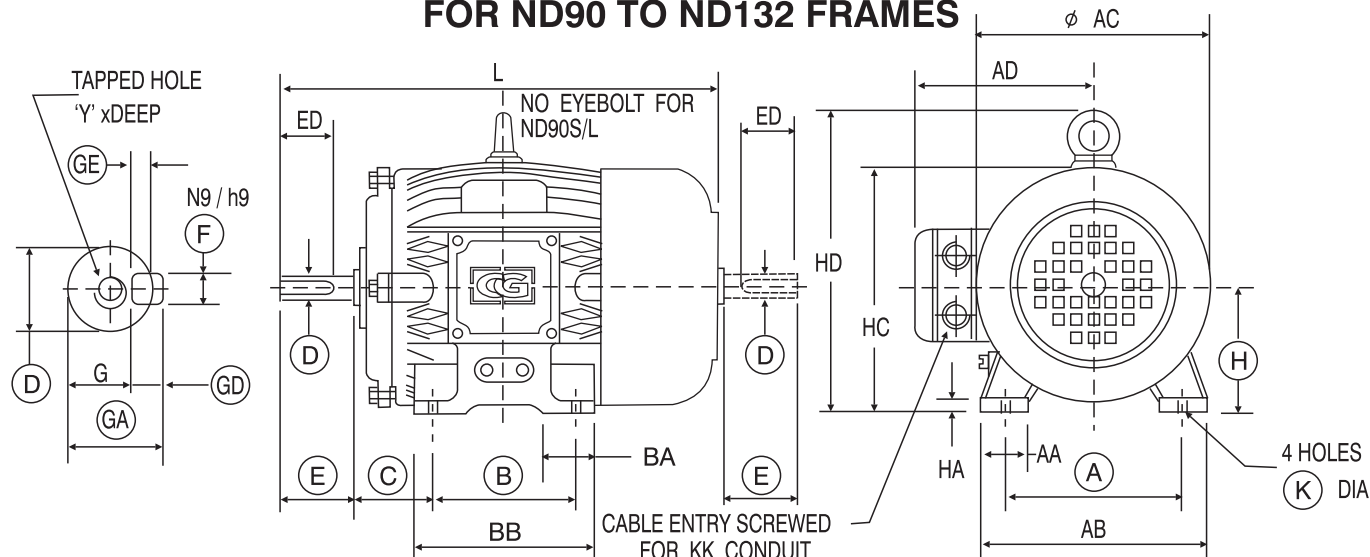
KEY		KEY WAY		SHAFT				FLANGE FIXING		
GD	F	ED	F	GE	D			N	M	ON
h9	h9		N9	-	k6	j6		j6		GR.
6 to 10	3 to 6	3 to 6	8 to 10	upto 3.5	30 to 50	18 to 30	10 to 18	6 to 10	120 to 250	RANGE
- 0.090	0	0	0	0	+ 0.018	+ 0.009	+ 0.003	+ 0.007	+ 0.300	TOL.
	- 0.030	- 0.030	+ 0.030	+ 0.200	+ 0.002	- 0.004	- 0.003	- 0.002	- 0.300	
	0	0	0	0	+ 0.100	+ 0.004	+ 0.003	+ 0.002	+ 0.011	
	0	0	0	0	0	+ 0.016	+ 0.013	+ 0.013	+ 0.016	
	0	0	0	0	0	+ 0.013	+ 0.013	+ 0.013	+ 0.013	
	0	0	0	0	0	+ 0.013	+ 0.013	+ 0.013	+ 0.013	

FRAME SIZE	FLANGE FIXING							SHAFT AND KEY									YxDEEP	OVERALL(MAX)				KK
	M	N	P	R	S	T	LA	D	E	ED	F	G	GA	GD	GE	X		AC	L	LB	AD	
SD63D	115	95	140	0	10	3	9	11	23	18	4	8.5	12.5	4	2.5	2.5	M4x10	125	220	197	100	3/4"
SD71D	130	110	160	0	10	3.5	9	14	30	25	5	11	16	5	3	2.5	M5x12.5	145	250	220	100	3/4"
SD80D	165	130	200	0	12	3.5	10	19	40	27	6	15.5	21.5	6	3.5	-	M6x16	165	285	245	120	3/4"
SD90SD SD90LD	165	130	200	0	12	3.5	10	24	50	36	8	20	27	7	4	-	M8x19	180	310 335	260 285	140	1"
SD100LD SD112MD	215	180	250	0	15	4	11	28	60	44	8	24	31	7	4	-	M10x22	200 222	360 380	300 320	150 158	1"
SD132SD SD132MD	265	230	300	0	15	4	11	38	80	60	10	33	41	8	5	-	M12x28	260	475	395	178	1"

- DIMENSIONS COMPLY WITH IS : 2223 AND ARE IN MM. EXCEPT CONDUIT ENTRY.
- TERMINAL BOX CAN BE TURNED THROUGH 360° IN STEP OF 90°, EXCEPT FOR FRAME SD80 WHICH HAS TERMINAL BOX INTEGRAL WITH BODY & CABLE ENTRY ON EITHER SIDE.
- SD63 & SD71 KEY WAY IS CLOSED WHILE FOR SD80 AND ABOVE FRAMES KEYWAY IS OPEN ON SHAFT.
- ALL DIMENSIONS ARE SUBJECTED TO CONFIRMATION.
- PLASTIC T.B. IS USED FOR SD63 TO SD80 FRAME, AND AL T.B. FOR SD90 TO SD132 FRAME.

SD6340

OUTLINE DIMENSION DRAWING FOR 3 PHASE SQUIRREL CAGE TEFC FOOT MOUNTED CAST IRON BODY INDUCTION MOTORS FOR ND90 TO ND132 FRAMES



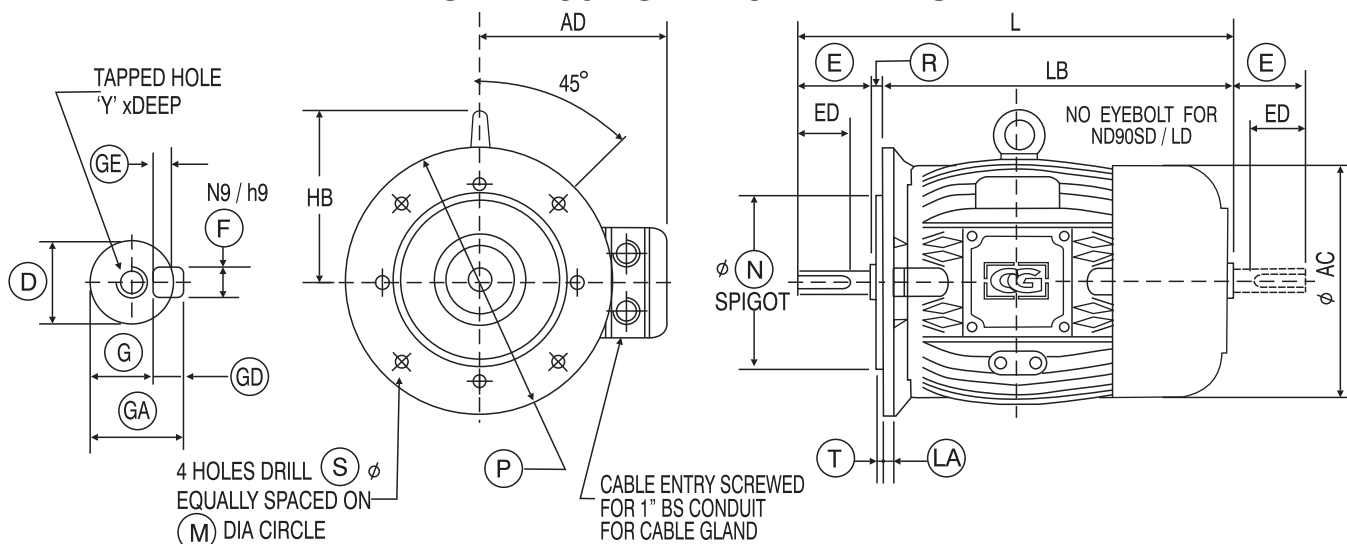
KEY		KEY WAY		SHAFT				FIXING	
GD	F	ED	F	GE	D			H	K
h11	h9	-	N9	-	k6	j6			H14
6 to 10	3 to 6	6 to 10	3 to 6	upto 3.5	30 to 50	18 to 30	10 to 18	6 to 10	12
- 0.090	0	- 0.036	0	0	+ 0.018	- 0.004	+ 0.003	- 0.500	- 0.036
	0	- 0.030	0	0	+ 0.002	+ 0.009	- 0.003	0	+ 0.043
		0	+ 0.300	0	+ 0.100	- 0.004	- 0.003		0

FRAME SIZE	FOOT FIXING									SHAFT AND KEY									OVERALL(MAX)							
	A	B	C	H	AA	AB	BA	BB	K	D	E	ED	F	G	GA	GD	GE	YxDEEP	AD	AC	L	HC	HD	HA	KK	
ND80	125	100	50	80	35	152	45	124	10	19	40	27	6	15.5	21.5	6	3.5	M6 x 16	134	170	285	165	-	11	3/4"	
ND90S ND90L	140	$\frac{100}{125}$	56	90	35	168	40	$\frac{127}{152}$	10	24	50	36	8	20	27	7	4	M8 x 19	150	195	$\frac{315}{340}$	185	-	13	1"	
ND100L	160	140	63	100	36	192	45	170	12	28	60	44	8	24	31	7	4	M10 x 22	160	215	380	205	250	13	1"	
ND112M	190	140	70	112	36	222	50	170	12	28	60	44	8	24	31	7	4	M10 x 22	170	235	405	230	275	13	1"	
ND132S ND132M	216	$\frac{140}{178}$	89	132	48	254	54	$\frac{178}{216}$	12	38	80	60	10	33	41	8	5	M12 x 28	190	275	$\frac{470}{510}$	270	320	16	1"	

1. DIMENSIONS COMPLY WITH IS : 1231 AND ARE IN MM., EXCEPT CONDUIT ENTRY.
2. TERMINAL BOX CAN BE TURNED THROUGH 360° IN STEP OF 90°
3. CABLE ENTRY : 1 No. FOR DOL STARTING & TWO Nos. FOR STAR DELTA STARTING/MULTISPEED MOTOR
4. TERMINAL BOX ON LEFT HAND SIDE LOOKING FROM DRIVING END CAN BE PROVIDED WHEN SPECIFIED.
5. ALL DIMENSIONS ARE SUBJECTED TO CONFIRMATION.

ND8050

OUTLINE DIMENSION DRAWING FOR 3 PHASE SQUIRREL CAGE TEFC FLANGE MOUNTED CAST IRON BODY INDUCTION MOTORS FOR ND90 TO ND132 FRAMES



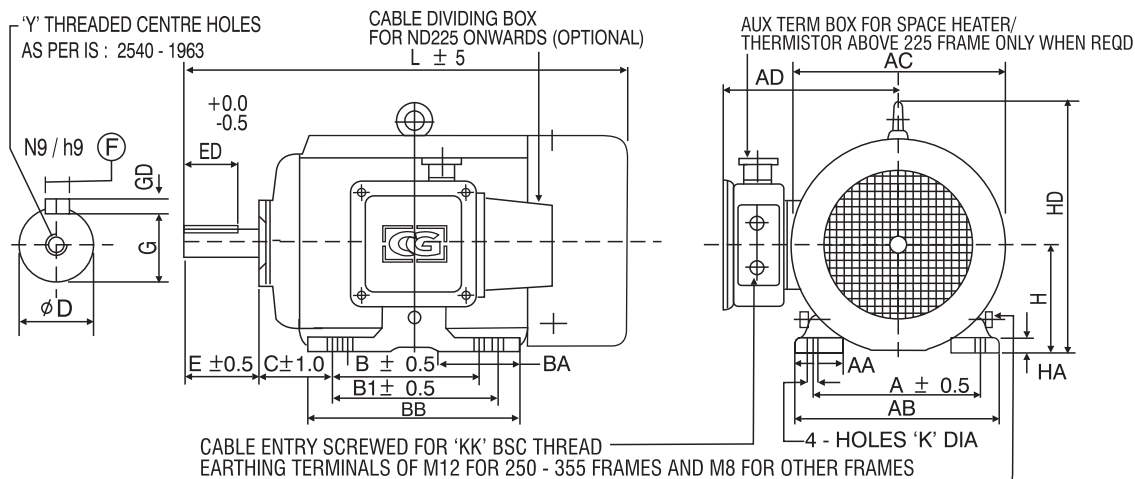
KEY		KEY WAY		SHAFT				FIXING		DN	GR.	RANGE	TOL
GD	F	ED	F	GE	D				N	M			
h11	h9	-	N9	-	k6	j6				j6			
6 to 10	3 to 6	6 to 10	3 to 6	30 to 50	18 to 30	10 to 18	6 to 10	250 to 265	180 to 180	120 to 120	Upto 265	0 to 0.300	0 to 0.300
- 0.090	- 0.030	- 0.036	- 0.030	+ 0.002	- 0.004	- 0.003	- 0.002	- 0.013	- 0.011	- 0.014	- 0.300	- 0.036	- 0.030
				+ 0.100	+ 0.009	+ 0.008	+ 0.007	+ 0.016	+ 0.011	+ 0.014	+ 0.300	+ 0.036	+ 0.030
				+ 0.200	- 0.004	- 0.003	- 0.002	- 0.013	- 0.011	- 0.014	- 0.300	- 0.036	- 0.030
				0	0	0	0	0	0	0	0	0	0

FRAME SIZE	FLANGE FIXING							SHAFT AND KEY									OVERALL(MAX)					
	M	N	P	R	S	T	LA	D	E	ED	F	G	GA	GD	GE	YxDEEP	AD	AC	L	LB	HB	KK
ND80D	165	130	200	0	12	3.5	10	19	40	27	6	15.5	21.5	6	3.5	M6 x 16	134	170	285	245	-	3/4"
ND90SD ND90LD	165	130	200	0	12	3.5	10	24	50	36	8	20	27	7	4	M8x19	150	190	<u>335</u> 360	<u>285</u> 310	-	1"
ND100LD	215	180	250	0	15	4	11	28	60	44	8	24	31	7	4	M10x22	160	210	380	<u>310</u> 320	150	1"
ND112MD	215	180	250	0	15	4	11	28	60	44	8	24	31	7	4	M10x22	170	230	405	<u>330</u> 345	160	1"
ND132SD ND132MD	265	230	300	0	15	4	14	38	80	60	10	33	41	8	5	M12x28	190	270	<u>470</u> 510	<u>390</u> 430	190	1"

1. DIMENSIONS COMPLY WITH IS : 1231 AND ARE IN MM., EXCEPT CONDUIT ENTRY.
2. TERMINAL BOX CAN BE TURNED THROUGH 360° IN STEP OF 90°
3. CABLE ENTRY : 1 No. FOR DOL STARTING & TWO Nos. FOR STAR DELTA STARTING/MULTISPEED MOTOR
4. TERMINAL BOX ON LEFT HAND SIDE LOOKING FROM DRIVING END CAN BE PROVIDED WHEN SPECIFIED.
5. ALL DIMENSIONS ARE SUBJECTED TO CONFIRMATION.

ND8040

OUTLINE DIMENSION DRAWING FOR 3 PHASE SQUIRREL CAGE TEFC FOOT MOUNTED INDUCTION MOTORS FOR ND160 TO ND355 FRAMES



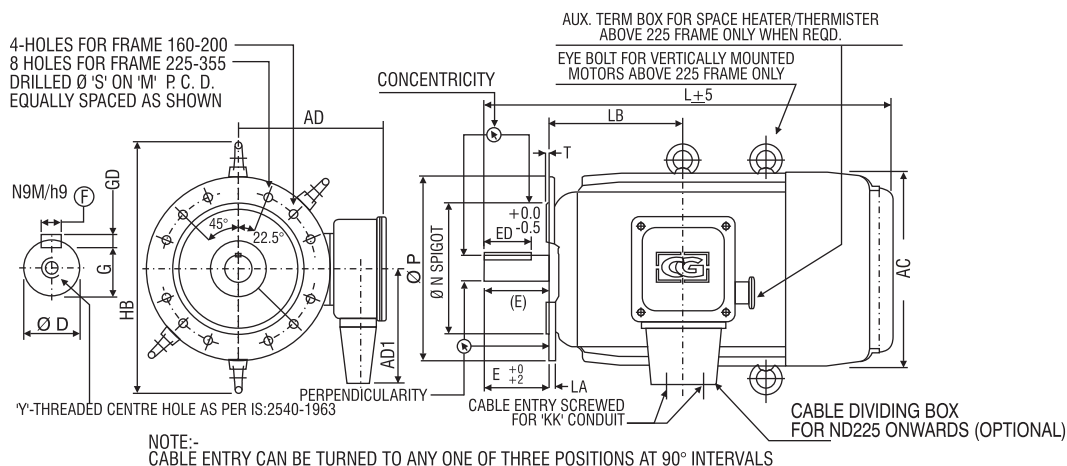
NOTE: CABLE ENTRY CAN BE TURNED TO ANY ONE OF THREE POSITIONS AT 90° INTERVALS. ALL DIMENSIONS ARE IN mm

FRAME SIZE	FOOT FIXING										SHAFT AND KEY#							OVERALL																																
	A	B	B1	C	H TOL	AA	AB	BA	BB	KTOL	D TOL	E	ED	F TOL	GDTOL	G	Y	AD	AC	L	HD	HA	KK																											
ND 160 M	254	210	-	108	160.0	73	308	76	254	15.5	42.018	110	80	12.00	8.00	37.0	M16x32	275	318	605	376	22	2Nos-1"																											
ND 160 L		254	-		159.7				298	15.0	42.002			11.957	7.91	36.8				650																														
ND 180 M	279	241	-	121	180.0	84	348	95	286	15.5	48.018	110	80	14.00	9.00	42.5	M16x32	295	352	677	418	22	2Nos-1"																											
ND 180 L		279	-		179.7				323	15.0	48.002			13.957	8.91	42.3				715																														
ND 200 L	318	305	-	133	200.0 199.5	66	381	115	356	19.5 19.0	55.030 55.011	110	80	16.00 15.957	10.00 9.91	49.0 48.8	M16x32	345	428	805	480	25	2Nos-1.5"																											
ND 225S	356	286	-	149	225.0	70	425	102	375	19.5	60.030			18.00	11.00	53.0																																		
ND 225M			311		224.5					19.5	60.011	140	110	17.957	10.91	52.8	M20x40	375	470	855	534	25																												
ND 250S	406	311	-	168	250.0	80	483	135	419	24.5	65.030			18.00	11.00	58.0																																		
ND 250M		-	349		249.5					24.0	65.011	140	110	17.957	10.91	57.8		405	500	940	598	32																												
ND 280S	457	368	-	190	280.0	100	538	167	487	24.5	75.030			140	110	20.00	12.00	67.5	M20x40	430	536	1035	642	35	2Nos-1.5"																									
ND 280M			419		279.0					24.0	75.011	140	110			19.948	11.91	67.3				1085																												
ND 315S	508	406	-	216	315.0	110	597	164	533	28.5	80.030	170	140	22.00	14.00	71.00	M20x40	510	588	1180	725	38	2Nos-2"																											
ND 315M		-	457		314.0					28.0	80.011			21.948	13.91	70.8				1230																														
ND 315L	508	508	-	216	315.0 314.0	110	610	230	740	28.5 28.0	90.035 90.013	170	140	25.00 24.948	14.00 13.91	81.0 80.8	M24x50	570	655	1375	755	35		2Nos-2.5"																										
ND 355S	610	500	-	254	355.0 354.0	110	710	253	745	28.5 28.0	100.035 100.013			28.000 27.948	16.00 15.89	90.0 89.8							560		672	1513	760	40																						
ND 355M		-	560								210	160				M24x50	560	672	1513	760	40																													
ND 355L		630	-																																															
ND 355LX																																																		
		630	-						250	880								600	720	1570	827																													

# ABOVE 200 FRAME MACHINES RUNNING AT 3000 SYN RPM HAVE SMALLER SHAFTS AS SHOWN HERE	FRAME SIZE	D TOL	E	ED	F TOL	GD TOL	G	L			
								S	M	L	LX
	ND 225	55.030/55.011	110	80	16.0/15.957	10.0/9.91	49.0/48.8	825	850	-	-
	ND 250	60.030/60.011	140	110	18.0/17.957	11.0/10.91	53.0/52.8	940	940	-	-
	ND 280	65.030/65.011	140	110	18.0/17.957	11.0/10.91	58.0/57.8	1035	1085	-	-
	ND 315							1150	1200	-	-
	ND 315	70.030/70.011	140	110	20.0/19.948	12.0/11.91	62.5/62.3	-	-	1345	-
	ND 355	75.030/75.011	170	140	20.0/19.948	12.0/11.91	67.5/67.3	1473	1473	1473	1530

ND16050

OUTLINE DIMENSION DRAWING FOR 3 PHASE SQUIRREL CAGE TEFC FLANGE MOUNTED INDUCTION MOTORS FOR ND160 TO ND355 FRAMES



FRAME SIZE	FLANGE FIXING						SHAFT AND KEY#							OVERALL						
	M TOL	N TOL	P	S	T	LA	D TOL	E	ED	F TOL	GD TOL	G	Y	AD	AD1	AC	L	LB	HB	KK
ND160M						18	42.018			12.00	8.00	37.0					660	213		
ND160L	300.5	250.016					42.002	110	80	11.957	7.91	36.8		275	152	318	705	235	432	
ND180M	299.5	249.957	350	19	5	18	48.018	110	80	14.00	9.00	42.5					746	241.5		
ND180L							48.002			13.957	8.91	42.3		295	152	352	784	260.5	476	2Nos-1"
ND 200L	350.5 349.5	300.018 299.982	400	19	5	15	55.030 55.011	110	80	16.. 15.957	10.00 9.91	49.0 48.8		345	282	428	873	285.5	528	
ND 225S	400.5	350.018				19	60.030			18.00	11.00	53.0								
ND 225M	399.5	349.982	450	19	5	19	60.011	140	110	17.957	10.91	52.8		375	282	470	955	3.4.5	590	2Nos-1.5"
ND 250S							65.030			18.00	11.00	58.0								
ND 250M	500.5	450.020				19	65.011	140	110	17.957	10.91	57.8		405	420	500	1020	342.5	688	
ND 280S	499.5	449.980					75.030			20.00	12.00	67.5								
ND 280M			550	19	5	19	75.011	140	110	19.948	11.91	67.3		430 515	420	536	1170	399.5	724	
ND 315S							80.030			22.00	14.00	71.0								
ND 315M	601.0 599.0	550.022 549.978	660	24	6	25	80.011	170	140	21.948	13.91	70.8		510	420	588	1340	444.5	820	2Nos-2"
ND 315L							90.035			25.00	14.00	81.0								
ND 355S							90.013	170	140	24.948	13.91	80.8		570	420	655	1490	530.5	820	
ND 355M	741.0	680.025					100.035			28.000	16.00	90.0								
ND 355L	739.0	679.975	800	24	6	28	100.013	210	160	27.948	15.89	89.9		600	420	670	1513	570	890	2Nos-2.5"
ND 355LX																720	1570	591	944	

# ABOVE 200 FRAMES MACHINES RUNNING AT 3000 SYN.RPM HAVE SMALLER SHAFTS AS SHOWN HERE	FRAME SIZE	D TOL	E	ED	F TOL	GD TOL	G	L			
								S	M	L	LX
	ND 225	55.030/55.011	110	80	16.0/15.957	10.0/9.91	49.0/48.8	925	925	-	-
	ND 250	60.030/60.011	140	110	18.0/17.957	11.0/10.91	53.0/52.8	1020	1020	-	-
	ND 280	65.030/65.011	140	110	18.0/17.957	11.0/10.91	58.0/57.8	1170	1170	-	-
	ND 315							1310	1310	-	-
	ND 315	70.030/70.011	140	110	20.0/19.948	12.0/11.91	62.5/62.3	-	-	1460	-
	ND 355	75.030/75.011	170	140	20.0/19.948	12.0/11.91	67.5/67.3	1473	1473	1473	1530

FRAME SIZE	CONCENTRICITY IN MICRON		PERPENDICULARITY IN MICRON		RUNOUT IN MICRON	
	NORM. CLASS		NORM. CLASS		SHAFT Ø	NORM.
160-280	125		125		30-50	50
315-355	160		160		50-80	60
					80-120	70

ND16040