

# MOTORI TRIFASE STANDARD EFFICIENCY - IE1

LIVELLO DI RENDIMENTO IN ACCORDO A IEC 60034-30-1:2014

METODO DI DETERMINAZIONE DEL RENDIMENTO IEC 60034-2-1:2014

Per motori 2,4,6 poli con PN < 0.75 kW, rendimento riferito alla IEC 60034-2:1996 (codice IE non applicabile)

TENSIONE DI  
ALIMENTAZIONE  
400 V - 50 HZ

# IE1

PROTEZIONE IP 55

Tipo	Potenza kW	Velocità nominale min <sup>-1</sup>	Coppia nominale M <sub>N</sub> (Nm)	Rendimento η 100%	Fattore di potenza cos φ	Corrente nominale I <sub>N</sub> 400V(A)	Corrente di avviamento I <sub>A</sub> /I <sub>N</sub>	Coppia di avviamento M <sub>A</sub> /M <sub>N</sub>	Coppia massima M <sub>K</sub> /M <sub>N</sub>	Momento di inerzia J 10 <sup>-3</sup> kgm <sup>2</sup>	Peso kg
<b>1000 min<sup>-1</sup> (6 poli)</b>											
T 56 B6	0.06	780	0.73	40	0.65	0.33	1.3	1.3	1.8	0.23	3.5
T 63 A6	0.09	890	0.96	40	0.49	0.67	1.7	2.5	2.5	0.30	4.1
T 63 B6	0.12	870	1.32	45	0.55	0.70	1.8	1.3	2.0	0.40	4.6
T 71 A6	0.18	850	2.00	51	0.73	0.70	2.1	1.4	2.1	0.60	5.7
T 71 B6	0.25	870	2.74	53	0.68	1.00	2.7	2.2	2.1	0.90	6.3
T 80 A6	0.37	880	4.00	56	0.71	1.35	2.7	2.2	2.1	1.32	8.8
T 80 B6	0.55	900	5.83	65	0.70	1.74	3.0	2.0	2.1	1.78	10.5
T 90S A6	0.75	910	7.87	70	0.72	2.15	3.7	2.2	2.1	2.80	13.0
T 90L B6	1.10	900	11.67	73	0.70	3.10	3.1	1.9	2.0	3.50	16.5
T 100L A6	1.50	935	15.30	76	0.70	4.09	4.2	2.1	2.5	6.40	21.0
T 100L B6	1.80	935	18.40	76	0.70	4.90	4.4	2.3	2.5	7.90	30.2
T 112M A6	2.20	945	22.23	79	0.64	6.30	4.6	2.7	2.7	11.00	40.0
T 132S A6	3.00	960	29.84	84	0.67	7.70	5.4	2.5	2.4	20.00	45.0
T 132M B6	5.50	950	55.30	85	0.72	12.97	5.8	2.1	3.1	35.00	60.0

## METODO DI DETERMINAZIONE DEL RENDIMENTO IEC 60034-2:1996

### 750 min<sup>-1</sup> (8 poli)

T 63 B8	0.08	630	1.21	45	0.53	0.48	1.3	1.3	1.8	0.40	4.6
T 71 B8	0.12	670	1.71	49	0.51	0.69	2.4	2.5	2.9	0.90	6.3
T 80 A8	0.18	670	2.56	47	0.60	0.92	2.1	1.8	2.0	1.32	9.0
T 80 B8	0.25	680	3.50	50	0.56	1.28	2.3	1.9	2.1	1.78	9.5
T 90S A8	0.37	670	5.30	61	0.62	1.40	2.5	1.7	2.2	2.80	13.0
T 90L B8	0.55	670	7.84	62	0.58	2.20	2.5	1.6	2.1	3.50	15.3
T 100L A8	0.75	690	10.40	67	0.65	2.50	2.9	1.7	1.9	6.40	20.0
T 100L B8	1.10	690	15.20	68	0.60	3.90	2.9	1.8	2.0	7.90	22.3
T 112M B8	1.50	710	20.20	76	0.63	4.50	3.9	1.7	2.4	11.00	36.0
T 132S A8	2.20	710	29.60	73	0.64	6.80	4.5	1.6	2.0	20.00	45.0
T 132M B8	3.00	705	40.60	80	0.70	7.70	5.2	1.5	2.2	35.00	55.0

TENSIONE DI  
ALIMENTAZIONE  
400 V - 50 HZ

PROTEZIONE IP 54

Tipo	Potenza kW	Velocità nominale min <sup>-1</sup>	Coppia nominale M <sub>N</sub> (Nm)	Rendimento η 100%	Fattore di potenza cos φ	Corrente nominale I <sub>N</sub> 400V(A)	Corrente di avviamento I <sub>A</sub> /I <sub>N</sub>	Coppia di avviamento M <sub>A</sub> /M <sub>N</sub>	Coppia massima M <sub>A</sub> /M <sub>N</sub>	Momento di inerzia J 10 <sup>-3</sup> kgm <sup>2</sup>	Peso kg
<b>3000/1500 min<sup>-1</sup> (2/4 poli) - Collegamento Dahlander Δ/YY</b>											
BP 63 A2/4	0.16/0.11	2700/1270	0.55/0.83	57/53	0.72/0.65	0.56/0.46	2.4/2.6	1.3/1.6	1.7/1.4	0.25	4.1
BP 63 B2/4	0.22/0.15	2710/1280	0.77/1.12	58/55	0.78/0.68	0.70/0.58	3.3/3.5	2.2/2.5	2.5/3.0	0.31	4.6
BP 71 A2/4	0.30/0.20	2750/1330	1.04/1.43	60/57	0.80/0.70	0.90/0.72	3.1/3.3	2.2/2.0	2.4/2.9	0.54	5.1
BP 71 B2/4	0.45/0.30	2780/1350	1.54/2.12	63/59	0.79/0.69	1.30/1.06	3.4/3.3	2.1/2.4	2.3/2.7	0.76	6.3
BP 80 A2/4	0.60/0.45	2800/1380	2.05/3.11	64/67	0.76/0.65	1.78/1.49	3.2/3.4	2.3/2.5	2.2/2.4	1.47	9.0
BP 80 B2/4	0.80/0.60	2820/1390	2.71/4.12	65/70	0.80/0.71	2.2/1.74	3.4/3.6	2.5/2.6	2.6/2.8	1.90	9.9
BP 90S A2/4	1.40/1.00	2830/1400	4.73/6.82	68/70	0.81/0.72	3.66/2.86	3.5/3.6	2.4/2.3	2.7/2.9	2.75	11.8
BP 90L B2/4	1.80/1.25	2830/1390	6.07/8.58	71/73	0.80/0.73	4.57/3.38	3.5/3.4	2.3/2.2	2.7/2.8	3.72	15.5
BP 100L A2/4	2.50/1.80	2860/1410	8.35/12.19	73/74	0.83/0.74	5.95/4.74	4.3/4.2	2.4/2.2	2.6/2.5	4.93	18.7
BP 100L B2/4	3.30/2.60	2880/1400	10.94/17.73	75/77	0.82/0.71	7.74/6.86	4.5/4.4	2.1/2.3	2.7/2.6	5.97	21.0
BP 112M A2/4	4.40/3.30	2900/1410	14.48/22.35	75/79	0.84/0.74	10.08/8.14	5.6/5.5	2.2/2.3	2.8/2.5	10.56	36.0
BP 132S A2/4	5.50/4.50	2910/1400	18.05/30.69	77/81	0.82/0.72	12.57/11.14	6.3/6.5	2.4/2.5	2.6/2.4	19.40	45.0
BP 132M B2/4	7.50/6.00	2920/1405	24.53/40.78	78/80	0.85/0.73	16.32/14.83	6.5/7.0	2.2/2.5	2.8/2.6	28.60	55.0
<b>1500/750 min<sup>-1</sup> (4/8 poli) - Collegamento Dahlander Δ/YY</b>											
BP 63 A4/8	0.09/0.04	1280/620	0.67/0.62	54/40	0.76/0.60	0.32/0.24	2.1/2.0	1.3/1.6	1.7/1.4	0.31	4.6
BP 71 B4/8	0.15/0.09	1305/610	1.09/1.40	56/40	0.75/0.61	0.52/0.53	2.4/2.6	2.2/2.5	2.5/3.0	0.54	5.1
BP 80 A4/8	0.37/0.20	1320/630	2.67/3.03	59/42	0.76/0.63	1.20/1.09	2.6/2.7	2.2/2.0	2.4/2.9	1.47	9.0
BP 80 B4/8	0.55/0.30	1350/650	3.89/4.41	60/45	0.78/0.64	1.69/1.50	2.7/2.5	2.1/2.4	2.3/2.7	1.90	9.9
BP 90S A4/8	0.75/0.37	1380/670	5.19/5.27	65/53	0.79/0.66	2.10/1.53	3.0/3.2	2.3/2.5	2.2/2.4	2.75	11.8
BP 90L B4/8	0.90/0.50	1400/680	6.14/7.02	68/56	0.80/0.68	2.39/1.89	3.0/3.3	2.5/2.6	2.6/2.8	3.72	15.5
BP 100L A4/8	1.40/0.70	1405/685	9.52/9.76	73/60	0.79/0.65	3.50/2.59	3.5/3.6	2.4/2.3	2.7/2.9	6.40	18.7
BP 100L B4/8	1.60/0.90	1410/690	10.84/12.46	75/64	0.81/0.68	3.80/2.98	3.5/3.4	2.3/2.2	2.7/2.8	7.90	21.0
BP 112M A4/8	1.70/1.00	1420/700	11.43/13.64	77/67	0.79/0.66	4.03/3.26	3.9/3.6	2.4/2.2	2.6/2.5	11.00	36.0
BP 112M A4/8	2.20/1.30	1410/690	14.90/18.00	78/69	0.77/0.64	5.29/4.25	4.6/4.0	2.1/2.3	2.7/2.6	13.54	39.0
BP 132S A4/8	3.70/2.20	1430/690	24.70/30.45	77/66	0.78/0.68	8.89/7.08	5.0/4.2	2.2/2.3	2.8/2.5	20.10	45.0
BP 132M B4/8	4.70/2.80	1445/710	31.06/37.66	80/72	0.82/0.64	10.34/8.77	5.2/4.4	2.4/2.5	2.6/2.4	35.00	55.0

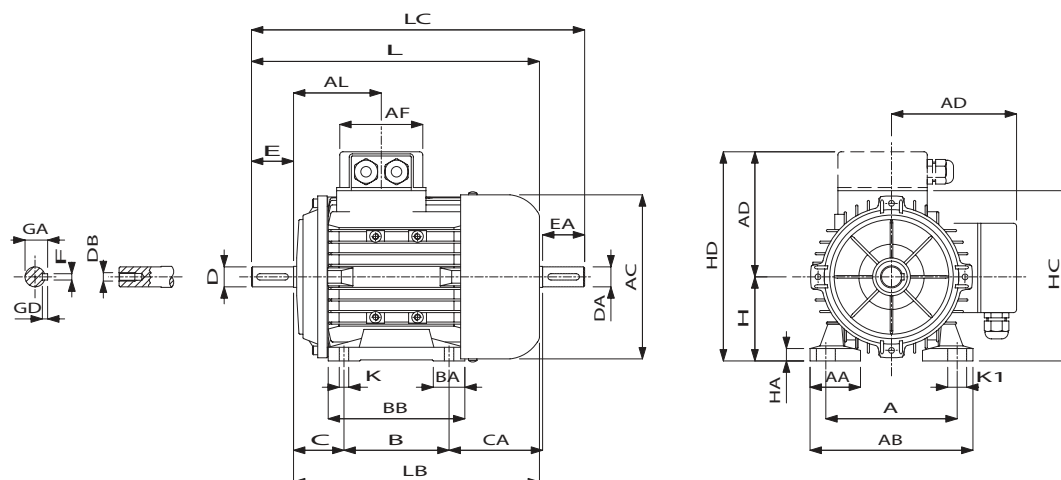
TENSIONE DI  
ALIMENTAZIONE  
400 V - 50 HZ

PROTEZIONE IP 54

Tipo	Potenza	Velocità nominale	Coppia nominale	Rendimento	Fattore di potenza	Corrente nominale	Corrente di avviamento	Coppia di avviamento	Coppia massima	Momento di inerzia	Peso
	kW	min <sup>-1</sup>	M <sub>N</sub> (Nm)	η 100%	cos φ	I <sub>N</sub> 400V(A)	I <sub>A</sub> /I <sub>N</sub>	M <sub>A</sub> /M <sub>N</sub>	M <sub>A</sub> /M <sub>N</sub>	J 10 <sup>-3</sup> kgm <sup>2</sup>	kg
<b>1500/1000 min<sup>-1</sup> (4/6 poli) - due avvolgimenti</b>											
BP 63 A4/6	0.18/0.04	1320/840	1.30/0.45	54/52	0.70/0.64	0.68/0.17	2.1/1.8	2.4/1.5	2.3/1.6	0.31	4.6
BP 71 B4/6	0.22/0.15	1360/860	1.54/1.66	63/55	0.73/0.65	0.69/0.61	2.3/1.9	2.3/1.6	2.2/1.5	0.76	5.1
BP 80 A4/6	0.37/0.26	1380/870	2.56/2.85	67/60	0.76/0.64	1.05/0.98	2.4/2.0	2.4/1.7	2.5/1.7	1.47	9.0
BP 80 B4/6	0.55/0.45	1380/880	3.80/4.88	69/63	0.77/0.66	1.50/1.56	3.2/2.8	2.5/1.7	2.6/1.8	1.90	9.9
BP 90S A4/6	0.75/0.50	1400/905	5.12/5.27	73/65	0.78/0.65	1.90/1.70	3.4/3.0	2.6/1.7	2.7/2.0	2.75	11.8
BP 90L B4/6	1.10/0.75	1410/910	7.45/7.87	75/67	0.80/0.66	2.65/2.44	3.7/3.2	2.5/1.6	2.8/2.2	3.72	15.5
BP 100L A4/6	1.50/0.90	1405/900	10.19/9.54	77/71	0.79/0.67	3.56/2.73	4.1/3.8	2.7/1.7	2.6/2.3	7.90	18.7
BP 112M A4/6	1.80/1.30	1420/910	12.10/13.64	80/74	0.81/0.68	4.00/3.73	4.4/4.0	2.9/1.8	2.8/2.5	11.00	36.0
BP 112M B4/6	2.60/1.80	1430/915	17.36/18.78	81/74	0.79/0.69	5.86/5.09	5.5/4.4	3.0/2.0	3.0/2.6	13.54	39.0
BP 132S A4/6	4.00/2.60	1425/920	26.80/26.98	80/75	0.80/0.68	9.02/7.36	5.7/4.8	3.2/2.2	3.1/2.7	20.00	45.0
BP 132M B4/6	5.50/3.70	1435/930	36.60/37.99	82/76	0.81/0.67	11.95/10.49	5.6/4.4	3.1/2.1	3.2/2.8	35.00	55.0
<b>1000/750 min<sup>-1</sup> (6/8 poli) - due avvolgimenti</b>											
BP 63 A6/8	0.07/0.037	840/600	0.79/0.59	52/46	0.64/0.55	0.30/0.21	2.1/1.8	2.0/1.5	1.4/1.3	0.31	4.6
BP 71 B6/8	0.18/0.09	845/620	2.03/1.38	54/48	0.65/0.56	0.74/0.48	2.3/1.9	2.1/1.6	1.6/1.5	0.76	5.1
BP 80 A6/8	0.25/0.18	860/640	2.77/2.68	58/53	0.66/0.55	0.94/0.89	2.7/2.5	2.2/1.6	1.7/1.8	1.90	9.0
BP 90S A6/8	0.37/0.25	870/660	4.06/3.62	63/56	0.67/0.56	1.26/1.15	3.2/2.8	2.3/1.7	2.2/2.1	2.75	11.8
BP 90L B6/8	0.55/0.37	890/680	5.90/5.20	67/59	0.67/0.55	1.77/1.65	3.5/3.1	2.4/1.8	2.3/2.1	3.72	15.5
BP 100L B6/8	0.75/0.55	900/670	7.96/7.84	73/63	0.66/0.57	2.25/2.21	3.8/3.3	2.6/1.9	2.5/2.2	7.90	18.7
BP 112M B6/8	1.10/0.75	905/690	11.60/10.38	76/67	0.68/0.56	3.07/2.88	4.6/4.2	2.4/2.0	2.3/2.5	11.00	36.0
BP 132S A6/8	1.50/1.10	910/700	15.74/15.00	79/70	0.70/0.61	3.92/3.72	5.5/4.4	2.6/2.3	3.0/2.8	20.00	45.0
BP 132M B6/8	2.20/1.50	920/700	22.84/20.46	80/73	0.72/0.63	5.51/4.71	5.5/4.6	2.4/2.1	3.1/2.7	35.00	55.0
<b>3000/750 min<sup>-1</sup> (2/8 poli) - due avvolgimenti</b>											
BP 63 A2/8	0.18/0.06	2760/600	0.62/0.95	56/40	0.78/0.60	0.59/0.36	2.1/1.8	2.4/1.5	2.3/1.6	0.31	4.6
BP 71 B2/8	0.30/0.09	2770/620	1.03/1.39	59/43	0.80/0.63	0.92/0.48	2.3/1.9	2.3/1.6	2.2/1.5	0.76	5.1
BP 80 A2/8	0.55/0.12	2800/640	1.87/1.79	64/47	0.81/0.62	1.53/0.59	2.4/2.0	2.4/1.7	2.5/1.7	1.90	9.0
BP 90S A2/8	0.75/0.18	2810/675	2.55/2.54	69/54	0.83/0.63	1.89/0.76	3.2/2.8	2.5/1.7	2.6/1.8	2.75	11.8
BP 90L B2/8	1.10/0.30	2810/680	3.74/4.21	74/56	0.82/0.61	2.62/1.26	3.4/3.0	2.6/1.7	2.7/2.0	3.72	15.5
BP 100L A2/8	1.50/0.37	2815/690	5.08/5.12	78/63	0.84/0.64	3.30/1.33	3.7/3.2	2.5/1.6	2.8/2.2	4.93	18.7
BP 100L B2/8	1.80/0.45	2810/680	6.12/6.32	80/65	0.83/0.63	3.91/1.59	4.1/3.8	2.7/1.7	2.6/2.3	5.97	21.0
BP 112M A2/8	2.20/0.55	2820/700	7.45/7.50	83/70	0.82/0.64	4.66/1.77	4.4/4.0	2.9/1.8	2.8/2.5	10.56	36.0
BP 132S A2/8	3.00/0.75	2825/710	10.14/10.09	84/71	0.85/0.66	6.06/2.31	5.5/4.4	3.0/2.0	3.0/2.6	19.40	45.0
BP 132M B2/8	4.00/1.10	2830/715	13.50/14.69	84/73	0.84/0.67	8.18/3.25	5.7/4.8	3.2/2.2	3.1/2.7	28.60	55.0

# MOTORI TRIFASE ALTEZZA D'ASSE 56 - 132 IM B3 SERIE AMPH - TPE - THE - T - BP

PER MOTORI SERIE THE 71 C2 E THE 80 D2, FARE RIFERIMENTO A PAG.77  
PER MOTORI SERIE AMPH 132, FARE RIFERIMENTO A PAG.47



IEC	H	A	B	C	K <sup>1)</sup>	AB	BB	CA	AD <sup>2)</sup>	HD <sup>2)</sup>	AC	HC	HA	K1
56	56	90	71	36	6	107	90	65	90	146	110	114	8	12
63	63	100	80	40	7	126	105	72	94	157	124	126	10	12
71	71	112	90	45	7	144	109	86	104	175	137	143	12	17
80	80	125	100	50	9	155	130	85	124	204	156	162	13	18
80*	80	125	100	50	9	155	130	116	124	204	156	162	13	18
90S	90	140	100	56	9	184	130	98	129	219	176	182	14	18
90L	90	140	125	56	9	184	154	98	129	219	176	182	14	18
90L*	90	140	125	56	9	184	154	139	129	219	176	182	14	18
100L	100	160	140	63	12	200	176	105	140	240	195	200	14	20
100L*	100	160	140	63	12	200	176	141	140	240	195	200	14	20
112M	112	190	140	70	12	220	176	118	151	263	219	225	15	21
112M*	112	190	140	70	12	220	176	155.5	151	263	219	225	15	21
132S	132	216	140	89	12	260	178	143	177	309	258	261	16	21
132M	132	216	178	89	12	260	216	143	177	309	258	261	16	21

IEC	L	LB	LC	AL	AF	BA	AA	D/DA	E/EA	F/FA	GD	GA/GC	DB <sup>3)</sup>
56	188	168	212	62	67	22	22	9	20	3	3	10.2	M4
63	214	191	238	66	67	26	26	11	23	4	4	12.5	M4
71	250	220	281	74	67	22	30	14	30	5	5	16	M5
80	275	235	315	80	79	31	32	19	40	6	6	21.5	M6
80*	306	266	348	80	79	31	32	19	40	6	6	21.5	M6
90S	302	252	354	83	79	32	39	24	50	8	7	27	M8
90L	326	276	378	83	79	32	39	24	50	8	7	27	M8
90L*	367	317	419	83	79	32	39	24	50	8	7	27	M8
100L	366	306	427.5	90	79	40	42	28	60	8	7	31	M10
100L*	402.5	342.5	465.5	90	79	40	42	28	60	8	7	31	M10
112M	385	325	448	92	79	38	42	28	60	8	7	31	M10
112M*	400	340	470.5	92	79	38	42	28	60	8	7	31	M10
132S	449	369	532	117	92	44	58	38	80	10	8	41.5	M12
132M	487	407	570	117	92	44	58	38	80	10	8	41.5	M12

\*SOLO SERIE AMPH E TPE

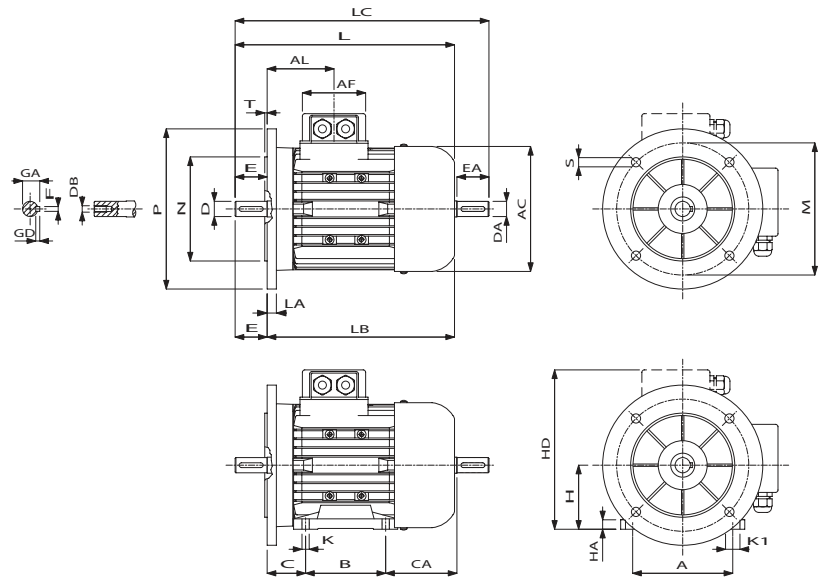
1) Dimensione foro per vite

2) Dimensione massima

3) Foro su uscita asse conforme a DIN 332 parte 2

# MOTORI TRIFASE ALTEZZA D'ASSE 56 - 132 IM B5, IM B35 SERIE AMPH - TPE - THE - T - BP

PER MOTORI SERIE THE 71 C2 E THE 80 D2, FARE RIFERIMENTO A PAG.78  
PER MOTORI SERIE AMPH 132, FARE RIFERIMENTO A PAG.47



IEC	M	N	P	T	LA	S	H	A	B	C	K <sup>1)</sup>	CA	HD <sup>2)</sup>	AC
56	100	80	120	2.5	5.5	7.0	56	90	71	36	6	65	146	110
63	115	95	140	3.0	10	9.5	63	100	80	40	7	72	157	124
71	130	110	160	3.5	10	9.5	71	112	90	45	7	86	175	137
80	165	130	200	3.5	12	11.5	80	125	100	50	9	85	204	156
80*	165	130	200	3.5	12	11.5	80	125	100	50	9	116	204	156
90S	165	130	200	3.5	12	11.5	90	140	100	56	9	98	219	176
90L	165	130	200	3.5	12	11.5	90	140	125	56	9	98	219	176
90L*	165	130	200	3.5	12	11.5	90	140	125	56	9	139	219	176
100L	215	180	250	4.0	14	14.0	100	160	140	63	12	105	240	195
100L*	215	180	250	4.0	14	14.0	100	160	140	63	12	141	240	195
112M	215	180	250	4.0	14	14.0	112	190	140	70	12	118	263	219
112M*	215	180	250	4.0	14	14.0	112	190	140	70	12	155.5	263	219
132S	265	230	300	4.0	14	14.0	132	216	140	89	12	143	309	258
132M	265	230	300	4.0	14	14.0	132	216	178	89	12	143	309	258

IEC	HA	K1	L	LB	LC	AL	AF	D/DA	E/EA	F/FA	GD	GA/GC	DB <sup>3)</sup>
56	8	12	188	168	212	62	67	9	20	3	3	10.2	M4
63	10	12	214	191	238	66	67	11	23	4	4	12.5	M4
71	12	17	250	220	281	74	67	14	30	5	5	16	M5
80	13	18	275	235	315	80	79	19	40	6	6	21.5	M6
80*	13	18	306	266	348	80	79	19	40	6	6	21.5	M6
90S	14	18	302	252	354	83	79	24	50	8	8	27	M8
90L	14	18	326	276	378	83	79	24	50	8	8	27	M8
90L*	14	18	367	317	419	83	79	24	50	8	8	27	M8
100L	14	20	366	306	427.5	90	79	28	60	8	8	31	M10
100L*	14	20	402.5	342.5	465.5	90	79	28	60	8	8	31	M10
112M	15	21	385	325	448	92	79	28	60	8	8	31	M10
112M*	15	21	400	340	470.5	92	79	28	60	8	8	31	M10
132S	16	21	449	369	532	117	92	38	80	8	10	41.5	M12
132M	16	21	487	407	570	117	92	38	80	8	10	41.5	M12

\*SOLO SERIE AMPH E TPE

1) Dimensione foro per vite

2) Dimensione massima

3) Foro su uscita asse conforme a DIN 332 parte 2

