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## Synchronous linear motors of

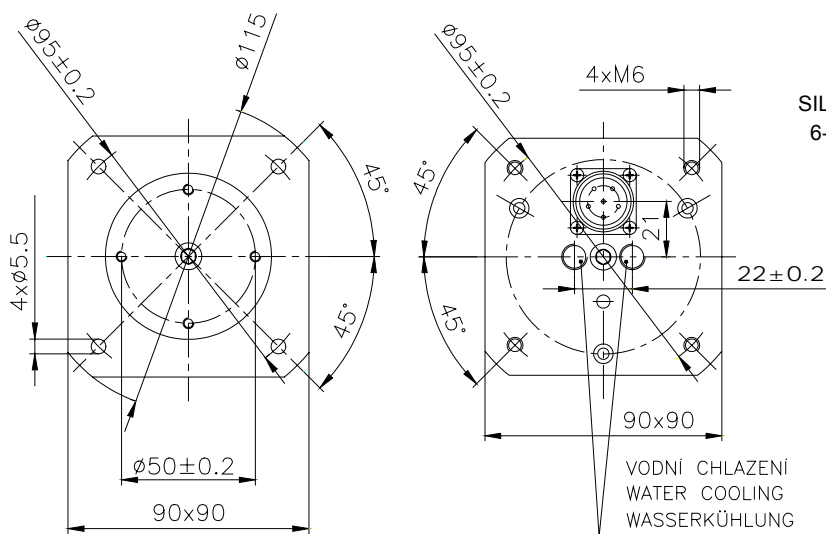
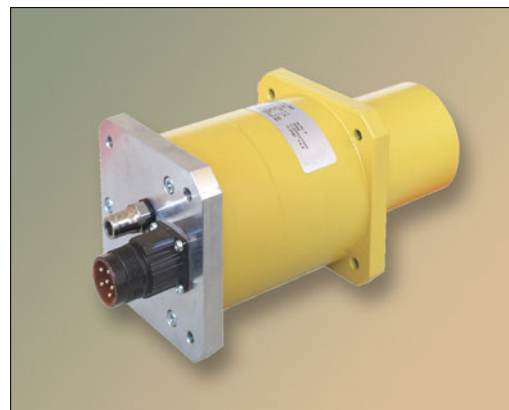
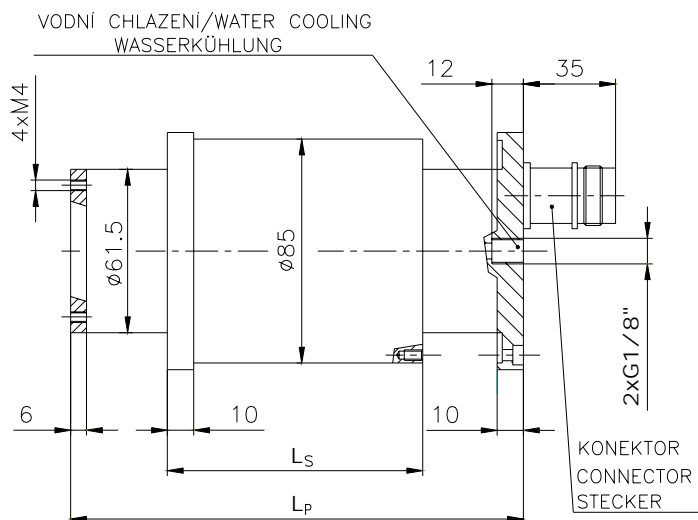
# series LTSK

Tubular linear motors for dynamic drives

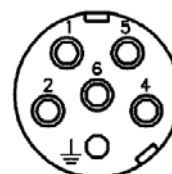
Thrust forces	200 ÷ 900 N
Thrust speed	1 m.s <sup>-1</sup>
Air cooling	IC3W7
Temperature class	F
Enclosure	IP 55

◆ Řada LTSK062E ◆ Series LTSK062E ◆  
◆ Reihe LTSK062E ◆

E – Vestavné provedení / E – Frameless motor / E – Einbaumotor



SILOVÝ KONEKTOR 6-ti pólový INTERCONTEC /  
6-pole MOTORCONNECTOR INTERCONTEC /  
MOTORSTECKER 6-polig INTERCONTEC



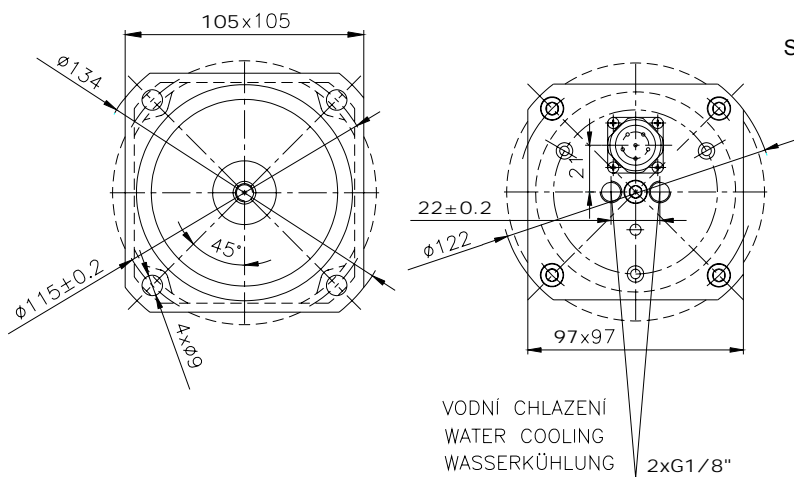
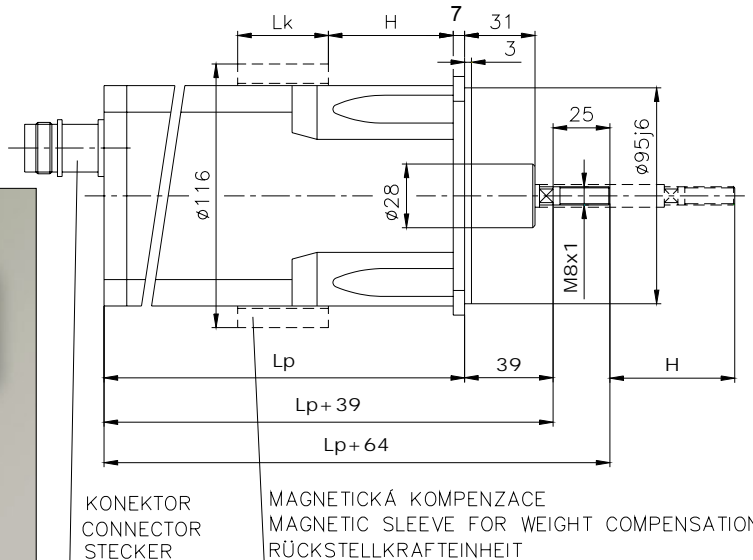
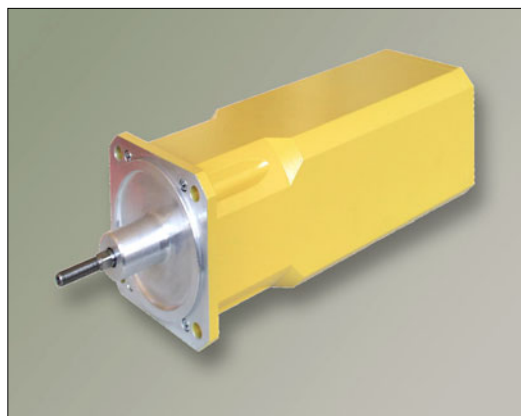
POHLED ZE STRANY PÁJENÍ /  
VIEW ON THE SOCKET SOLDERED SIDE /  
ANSICHT GEGENSTECKER LÖTSEITE

Typ / Type / Typ	F <sub>peak</sub> [N]	H [mm]	L <sub>p</sub> [mm]	L <sub>s</sub> [mm]	m [kg]	m <sub>sec</sub> [kg]
LTSK062E-1510-3	500	55	171	97	2,3	1,6
LTSK062E-1810-3	500	85	201	97	2,8	1,6
LTSK062E-1810-4	700	55	201	127	2,7	2,1
LTSK062E-2110-4	700	85	231	127	3,2	2,1
LTSK062E-2110-5	900	55	231	157	3,2	2,5
LTSK062E-2410-5	900	85	261	157	3,6	2,5

PIN	FUNKCE / FUNCTION / FUNKTION	BARVA / COLOUR / FARBE
1	U	BILÁ / WHITE / WEISS
2	W	ČERVENÁ / RED / ROT
⏏	⏏	ZELENÁ-ZLUTÁ / GREEN-YELLOW / GRÜN-GELB
4	KTY84-130 +	ŽLUTÁ / YELLOW / GELB
5	V	MODRÁ / BLUE / BLAU
6	KTY84-130 -	FIALOVÁ / VIOLET / LILA

◆ Řada LTK062G ◆ Series LTK062G ◆  
◆ Reihe LTK062G ◆

G – Motor v kostře / G – Motor in the frame / G – Gehäusemotor



SILOVÝ KONEKTOR 6-ti pólový INTERCONTEC /  
6-pole MOTORCONNECTOR INTERCONTEC /  
MOTORSTECKER 6-polig INTERCONTEC



POHLED ZE STRANY PÁJENÍ /  
VIEW ON THE SOCKET SOLDERED SIDE /  
ANSICHT GEGENSTECKER LÖTSEITE

Typ / Type / Typ	$F_{peak}$ [N]	H [mm]	$L_p$ [mm]	$L_k$ [mm]	m [kg]	$m_{sec}$ [kg]	$m_k$ [kg]
LTK062G-1510-3	500	50	250	70	4,55	1,8	1,6
LTK062G-1810-3	500	80	280	100	5	1,8	2,2
LTK062G-1810-4	700	50	280	70	5	2,2	1,6
LTK062G-2110-4	700	80	310	100	5,45	2,2	2,2
LTK062G-2110-5	900	50	310	70	5,45	2,6	1,6
LTK062G-2410-5	900	80	340	100	5,9	2,6	2,2

PIN	FUNKCE / FUNCTION / FUNKTION	BARVA / COLOUR / FARBE
1	U	BÍLÁ / WHITE / WEIS
2	W	ČERVENÁ / RED / ROT
$\perp$	$\perp$	ZELENÁ-ŽLUTÁ / GREEN-YELLOW / GRÜN-GELB
4	KTY84-130 +	ŽLUTÁ / YELLOW / GELB
5	V	MODRÁ / BLUE / BLAU
6	KTY84-130 -	FIALOVÁ / VIOLET / LILA

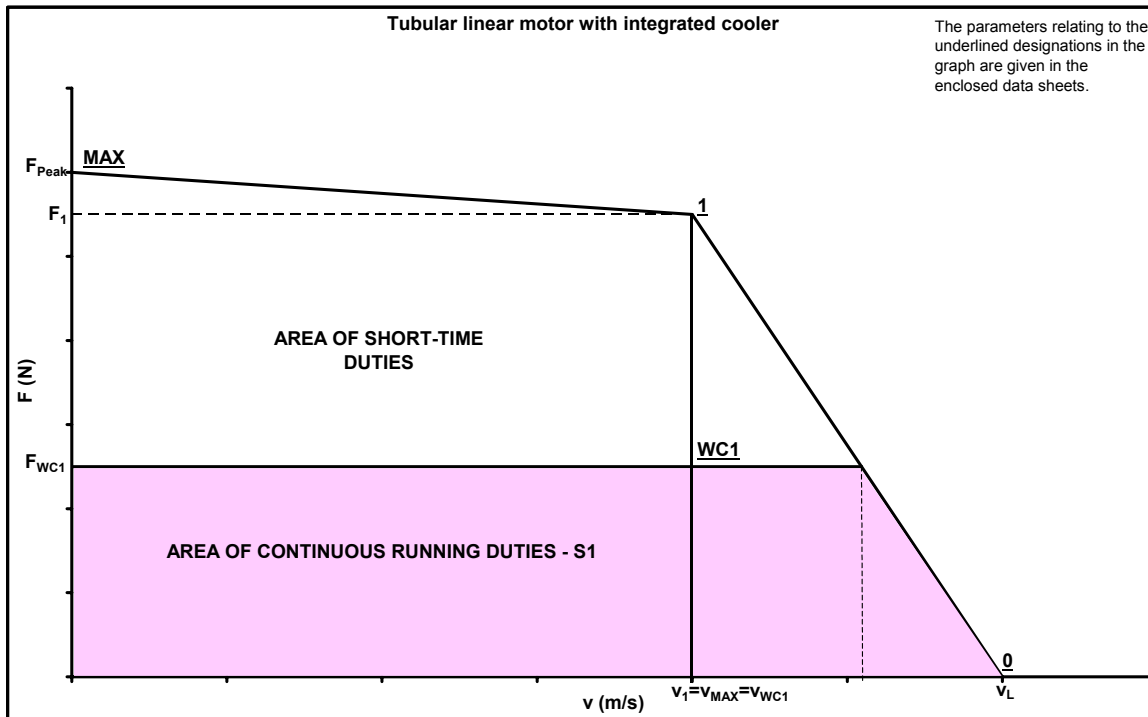
$m_k$  – hmotnost magnetické kompenzace / mass of magnetic sleeve / Masse der Rückstellkrafteinheit

Technická data / Technical data / Technische Daten

$U_{DC} = 330, 560 \text{ V}$

Typ / Type / Typ	$F_{peak}$ [N]	$I_{peak}$ [A]	$F_1$ [N]	$I_1$ [A]	$v_1$ [ms <sup>-1</sup> ]	$f_1$ [Hz]	$F_{wc1}$ [N]	$I_{wc1}$ [A]	$v_{wc1}$ [ms <sup>-1</sup> ]	$I_{ULT}$ [A]	$k_E$ [Vs/m]	$k_F$ [NA <sup>-1</sup> ]	$R_{U-V}$ [W]	$L_{U-V}$ [mH]	$t_{el}$ [ms]	Chladič / Cooler Kühler	
																$Q_{wwco}$ [l/min]	$\Delta p$ [kPa]
LTSK062E-1510-3-EL	500	15	350	10,0	1,0	16,7	200	5,7	1	25	20	35	6,2	8,5	2	2	250
LTSK062E-1510-3-CL	500	24	350	16,5	1,0	16,7	200	9,5	1	40	12	21	2,35	4	2	2	250
LTSK062E-1810-3-EL	500	15	350	10,0	1,0	16,7	200	5,7	1	25	20	35	7,44	8,5	2	2	270
LTSK062E-1810-3-CL	500	24	350	16,5	1,0	16,7	200	9,5	1	40	12	21	2,82	6	2	2	270
LTSK062E-1810-4-FL	700	15	500	10,5	1,0	16,7	265	5,7	1	25	26,8	46,5	7,44	11,3	2	2	270
LTSK062E-1810-4-DL	700	25	500	17,5	1,0	16,7	265	9,5	1	40	16	28	2,82	6	2	2	270
LTSK062E-2110-4-FL	700	15	500	10,5	1,0	16,7	265	5,7	1	25	26,8	46,5	8,68	11,3	2	2	300
LTSK062E-2110-4-DL	700	25	500	17,5	1,0	16,7	265	9,5	1	40	16	28	3,29	6	2	2	300
LTSK062E-2110-5-GL	900	16	650	11,0	1,0	16,7	330	5,7	1	25	33,5	58	8,68	14,2	2	2	300
LTSK062E-2110-5-EL	900	26	650	18,5	1,0	16,7	330	9,5	1	40	20	35	3,29	8	2	2	300
LTSK062E-2410-5-GL	900	16	650	11,0	1,0	16,7	330	5,7	1	25	33,5	58	9,92	14,2	2	2	335
LTSK062E-2410-5-EL	900	26	650	18,5	1,0	16,7	330	9,5	1	40	20	35	3,76	8	2	2	335
LTSK062G-1510-3-EL	500	15	350	10,0	1,0	16,7	200	5,7	1	25	20	35	6,2	8,5	2	2	250
LTSK062G-1510-3-CL	500	24	350	16,5	1,0	16,7	200	9,5	1	40	12	21	2,35	4	2	2	250
LTSK062G-1810-3-EL	500	15	350	10,0	1,0	16,7	200	5,7	1	25	20	35	7,44	8,5	2	2	270
LTSK062G-1810-3-CL	500	24	350	16,5	1,0	16,7	200	9,5	1	40	12	21	2,82	6	2	2	270
LTSK062G-1810-4-FL	700	15	500	10,5	1,0	16,7	265	5,7	1	25	26,8	46,5	7,44	11,3	2	2	270
LTSK062G-1810-4-DL	700	25	500	17,5	1,0	16,7	265	9,5	1	40	16	28	2,82	6	2	2	270
LTSK062G-2110-4-FL	700	15	500	10,5	1,0	16,7	265	5,7	1	25	26,8	46,5	8,68	11,3	2	2	300
LTSK062G-2110-4-DL	700	25	500	17,5	1,0	16,7	265	9,5	1	40	16	28	3,29	6	2	2	300
LTSK062G-2110-5-GL	900	16	650	11,0	1,0	16,7	330	5,7	1	25	33,5	58	8,68	14,2	2	2	300
LTSK062G-2110-5-EL	900	26	650	18,5	1,0	16,7	330	9,5	1	40	20	35	3,29	8	2	2	300
LTSK062G-2410-5-GL	900	16	650	11,0	1,0	16,7	330	5,7	1	25	33,5	58	9,92	14,2	2	2	335
LTSK062G-2410-5-EL	900	26	650	18,5	1,0	16,7	330	9,5	1	40	20	35	3,76	8	2	2	335

## Power characteristic for the type LTSK



### Used symbols

$F_{peak}$ [ N ]	- highest force developed by the motor (it is used as starting force)	$R_{u-v}$ [ $\Omega$ ]	- resistance of the motor winding at 20°C
$F_1$ [ N ]	- max. force by current $I_1$ and speed $v_1$	$L_{u-v}$ [ mH ]	- inductance of the winding
$v_1$ [ m/s ]	- speed of the motor by current $I_1$ and force $F_1$	$\tau_{el}$ [ ms ]	- electromagnetic time constant of the motor
$F_1$ , $I_1$ and $v_1$	values determine the transition point of the motor.	$U_{BUS}$ [ V ]	- DC voltage of intermediate circuit of the frequency converter for which the motor is produced
$F_{NC}$ [ N ]	- force being developed by the motor continuously at the air cooling by the motor surface	$k_F$ [ N/A ]	- force constant of the motor
$F_A$ [ N ]	- attractive force between the primary and secondary parts of the motor (is fully compensated)	$k_E$ [ Vs/m ]	- voltage constant of the motor
$F_{wc1}$ [ N ]	- force being developed by the motor continuously at the cooling by a built-in water cooler	$k_M$ [ N/ $\sqrt{W}$ ]	- constant of the motor
$I_{peak}$ [ A ]	- current corresponding to the force $F_{peak}$	$v_L$ [ m/s ]	- theoretic no-load velocity
$I_1$ [ A ]	- maximum short-time permissible current (r.m.s. value ) which is given by the intersection of current limitation of the servomotor and of limitation by the rated voltage of the converter	$\Delta P_1$ [ W ]	- motor losses corresponding to the force $F_1$ at the winding temperature of 130°C
$I_{wc1}$ [ A ]	- current corresponding to the force $F_{wc1}$	$\Delta P_{wc1}$ [ W ]	- motor losses corresponding to the force $F_{wc1}$ at the winding temperature of 130°C
$I_{NC}$ [ A ]	- current corresponding to the force $F_{NC}$	$\Delta P_{NC}$ [ W ]	- motor losses corresponding to the force $F_{NC}$ at the winding temperature of 130°C
		$m$ [ kg ]	- mass of the primary part of the motor
		$m_{sec}$ [ kg ]	- mass of the secondary part of the motor
		$f_1$ [ Hz ]	- supply current frequency corresponding to the velocity $v_1$
		$I_{ult}$ [ A ]	- supply current the exceeding of which brings about demagnetization of magnets