

TETRA COMPACT-X 40 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
ENCLOSURE
PROTECTION CLASS
INSULATION SYSTEM UL

Continuous
F
Totally enclosed. Self-cooled
IP 65 standard on the body
cURus , DV155J File nr.:E216686

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
POLES
THERMAL PROTECTION
CE certified

-40 to 80 °C
5 to 85% (non-condensing)
8
Not available

TC-X 40 0,16 32

TC-X 40 0,16 01

			Ambient temperature			Ambient temperature		
			-40°C	0 ÷ +40°C	+80°C	-40°C	0 ÷ +40°C	+80°C
Continuous stall torque	M_0	Nm	0,24	0,21	0,16	0,24	0,21	0,16
Peak torque	M_{max}	Nm	0,48	0,48	0,48	0,48	0,48	0,48
Nominal torque	M_n	Nm	0,22	0,19	0,14	0,22	0,19	0,14
Rated voltage	U_n	V	24 Vdc	24 Vdc	24 Vdc	48 Vdc	48 Vdc	48 Vdc
Nominal power	P_N	W	70	60	44	70	60	44
Continuous stall current	I_0	A_{rms}	4,89	4,23	2,94	2,62	2,23	1,41
Maximum current	I_{max}	A_{rms}	9,67	9,67	9,67	5,09	5,09	5,09
Nominal current	I_N	A_{rms}	4,57	3,96	2,76	2,46	2,09	1,32
Nominal working speed	nN	min ⁻¹	3000	3000	3000	3000	3000	3000
Maximum working speed 24VDC	nmax	min ⁻¹	5000	5000	5000	-	-	-
Maximum working speed 48VDC	nmax	min ⁻¹	-	-	-	5000	5000	5000
Maximum working speed 230VAC	nmax	min ⁻¹	-	-	-	-	-	-
Torque constant	k_t	Nm/ A_{rms}	0,050	0,050	0,050	0,094	0,094	0,094
Voltage constant	K_{eu-v}	Vrms/Krpm	3,0	3,0	3,0	5,7	5,7	5,7
Winding resistance	R_{20u-v}	Ohm	1,0	1,0	1,0	3,2	3,2	3,2
Winding inductance	L_{qu-v}	mH	0,7	0,7	0,7	2,5	2,5	2,5
Electrical time constant	T_e	ms	0,70	0,70	0,70	0,78	0,78	0,78
Thermal resistance	°C/W	°C/W	2,38	2,38	2,38	2,38	2,38	2,38
Mechanical time constant	T_m	ms	1,62	1,62	1,62	1,47	1,47	1,47
Rotor inertia (*)	J_M	Kgcm ²	0,027	0,027	0,027	0,027	0,027	0,027
Mass	m	Kg	0,4	0,4	0,4	0,4	0,4	0,4
Maximum axial shaft load	N		30 (applied on the shaft's center)					
Maximum radial shaft load	N		180 (applied on the shaft's center)					

Rated output with 250 x 250 x 6 mm aluminum heat sink flange coupling - Derating must be considered if the oil seal is applied - IP 54 standard shaft bushing
(*) without feedback

SEE IT BEFORE IT HAPPENS

**MOTOR
POWER**
COMPANY

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TC-X 40 0,32 01

TC-X 40 0,32 21

			Ambient temperature			Ambient temperature		
			-40°C	0 ÷ +40°C	+80°C	-40°C	0 ÷ +40°C	+80°C
Continuous stall torque	M_0	Nm	0,40	0,34	0,21	0,40	0,34	0,21
Peak torque	M_{max}	Nm	0,96	0,96	0,96	0,96	0,96	0,96
Nominal torque	M_n	Nm	0,38	0,32	0,19	0,38	0,32	0,19
Rated voltage	U_n	V	48 Vdc	48 Vdc	48 Vdc	230 Vac	230 Vac	230 Vac
Nominal power	P_N	W	120	100	60	120	100	60
Continuous stall current	I_0	A_{rms}	4,26	3,61	1,88	0,77	0,65	0,38
Maximum current	I_{max}	A_{rms}	10,18	10,18	10,18	1,82	1,82	1,82
Nominal current	I_N	A_{rms}	4,11	3,48	1,81	0,74	0,62	0,36
Nominal working speed	nN	min ⁻¹	3000	3000	3000	3000	3000	3000
Maximum working speed 24VDC	nmax	min ⁻¹	-	-	-	-	-	-
Maximum working speed 48VDC	nmax	min ⁻¹	5000	5000	5000	-	-	-
Maximum working speed 230VAC	nmax	min ⁻¹	-	-	-	5000	5000	5000
Torque constant	k_t	Nm/ A_{rms}	0,094	0,094	0,094	0,526	0,526	0,526
Voltage constant	K_{eu-v}	Vrms/Krpm	5,7	5,7	5,7	31,8	31,8	31,8
Winding resistance	R_{20u-v}	Ohm	1,1	1,1	1,1	36,2	36,2	36,2
Winding inductance	L_{qu-v}	mH	1,42	1,42	1,42	44	44	44
Electrical time constant	T_e	ms	1,29	1,29	1,29	1,21	1,21	1,21
Thermal resistance	°C/W	°C/W	2,30	2,30	2,30	2,30	2,30	2,30
Mechanical time constant	T_m	ms	0,88	0,88	0,88	0,92	0,92	0,92
Rotor inertia (*)	J_M	Kgcm ²	0,047	0,047	0,047	0,047	0,047	0,047
Mass	m	Kg	0,54	0,54	0,54	0,54	0,54	0,54
Maximum axial shaft load	N		30 (applied on the shaft's center)					
Maximum radial shaft load	N		180 (applied on the shaft's center)					

Rated output with 250 x 250 x 6 mm aluminum heat sink flange coupling - Derating must be considered if the oil seal is applied - IP 54 standard shaft bushing
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