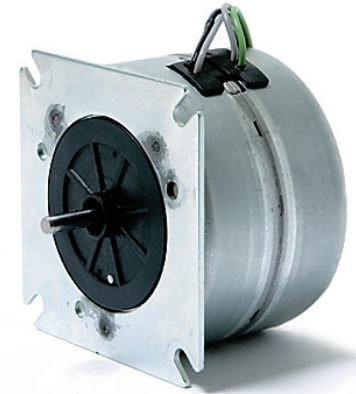


## UP (SM6443; SM6444)

Dimensions (mm)	∅ 64 x 43
Voltage (V)	12–230
Speed (rpm) 50 Hz	375
60 Hz	450
Pole number	16
Running torque (cNm) 50 Hz	13–18.5 (UPU1); 28–35 (UPU5)
60 Hz	11–17 (UPU1); 21–30 (UPU5)
Power output (W) 50 Hz	5.1–7.3 (UPU1); 11–13.8 (UPU5)
60 Hz	5.2–8.0 (UPU1); 9.9–14.2 (UPU5)
Gear combination	O, P, R



## Standard Data

Climatic class	wide-spread according to DIN IEC 60721-2-1 : 1992
Ambient temperature operation	°C -15 ... +40
Ambient temperature storage	°C -20 ... +100
Thermal class	130 (B) according to DIN EN 60085 : 2004
Approval	standard
Mounting	any position
Electrical connection	lead wires AWG22, insulation ∅ 1.6 ± 0.1 mm
Protection	IP30 according to DIN EN 60529 : 2000
Weight	500 g (UPU1); 550 g (UPU5)
Rotor stalling	motor can be stopped when voltage is applied, without being overheated
Bearings	Sintered bronze, self-lubricating

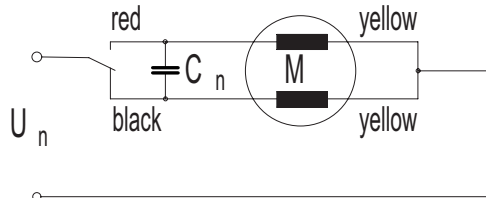
## Order Reference

Type	Synchronous Motor	UPU	1	1	N	B4	R	E
Configuration	1 standard magnet 5 stronger magnet							
Rotor shaft, mounting	1 centring 10 mm, shaft length 8,1 mm, screw plate 2 centring 10 mm, shaft length 15,5 mm, screw plate A centring 14 mm, shaft length 8,1 mm, screw plate C centring 14 mm, shaft length 15,5 mm, screw plate							
Approval	N standard							
Voltage/Frequency	see next page							
Direction	R reversible							
Cable	E 150 mm (other upon request)							

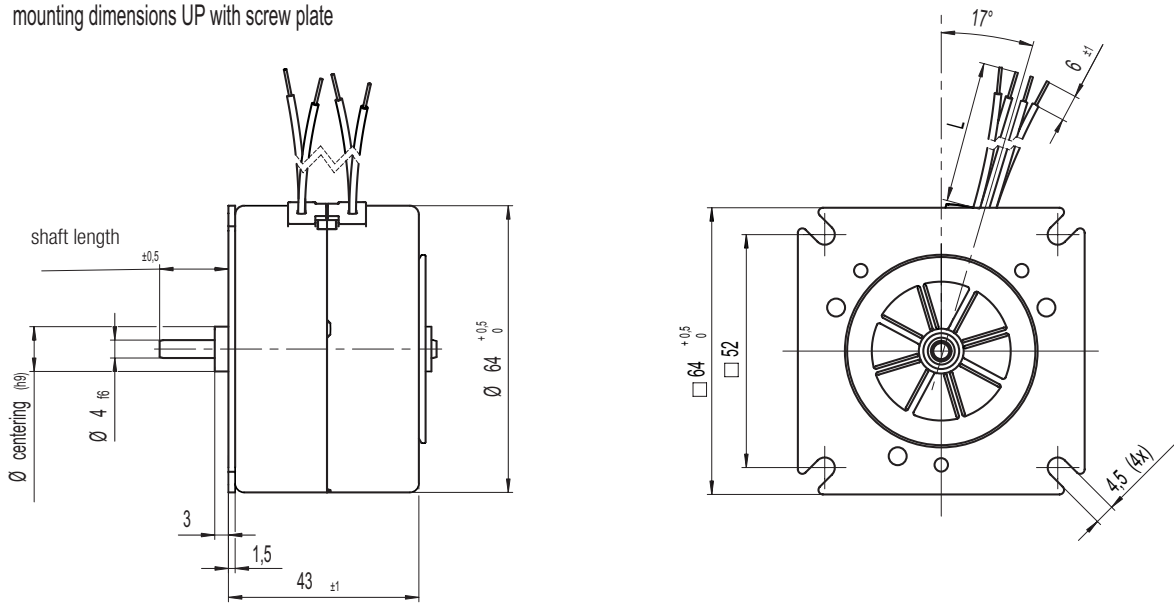
## Technical Data

UPU1		Standard			S2 version (Z20)	
Rated frequency	Hz	50	60	50	60	
Speed	rpm	375	450	375	450	
Running torque Mn	cNm	13	11	18,5	17	
Power output	W	5,1	5,2	7,3	8	
Power consumption	VA	11,7	12,65	18	21	
Nominal current at 230 V	mA	51	55	78,2	91,3	
Max. permissible ext. inertia	gcm <sup>2</sup>	100	50	130	60	
Detent torque MS	cNm	2	2	2	2	
Winding temperature increase	K	95	100	90 (S2 20 min)		
Weight	g	500	500	500	500	
Standard windings						
Rated voltage U <sub>N</sub>	V	24	115	230		
Duty cycle	%	100	100	100		
Resistance R <sub>20</sub>	Ω	26	560	2450		
Winding code		B4/G4	D0/J0	D5/J5		
UPU5		Special version (Z21)			Standard	
Rated frequency	Hz	50	60	50	60	
Speed	rpm	375	450	375	450	
Running torque Mn	cNm	28	21	35	30	
Power output	W	11	9,9	13,8	14,2	
Power consumption	VA	26	28	31	33,5	
Nominal current at 230 V	mA	113	122	135	145	
Max. permissible ext. inertia	gcm <sup>2</sup>	500	350	600	400	
Detent torque MS	cNm	7	7	7	7	
Winding temperature increase	K	85 (S2 6,5 min)	85 (S2 6,5 min)	95 (S2 5 min)	95 (S2 5 min)	
Weight	g	550	550	550	550	
Standard windings						
Rated voltage U <sub>N</sub>	V	24	48	115	230	
Duty cycle	%					
Resistance R <sub>20</sub>	Ω	9,5	37	230	810	
Capacitor C <sub>50</sub>	μF/V ±10%	82/63	20/160	3,3/250	0,82/500	
Winding code		B4/G4	C1/H1	D0/J0	D5/J5	

Circuit diagram Clockwise rotation

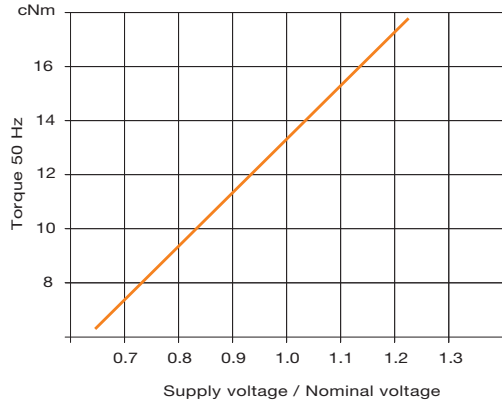


Dimensions mounting dimensions UP with screw plate

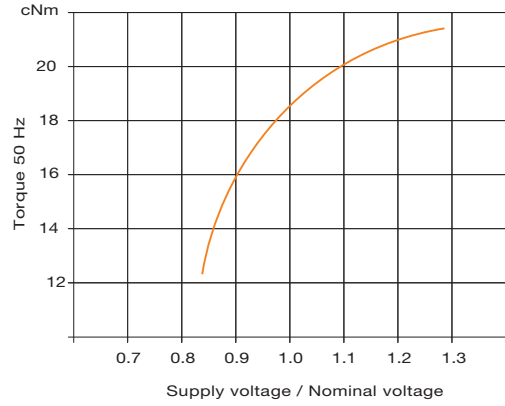


## Chart: Torque versus Voltage

UPU1

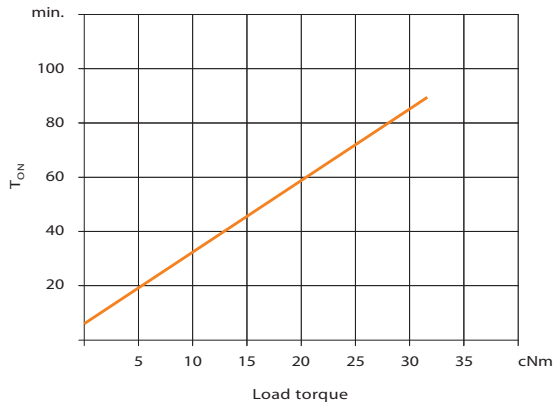


UPU1 S2 version (Z20)

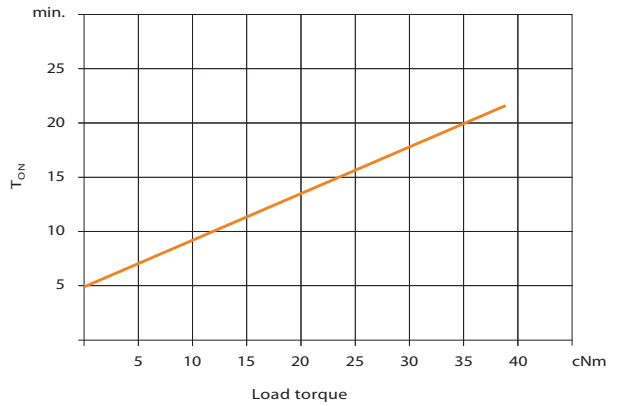


## Chart: Possible S2 ON time versus load torque

UPU5 special version (Z21)

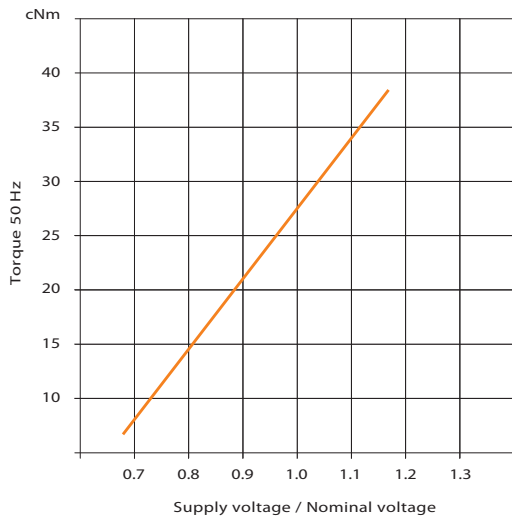


UPU5 standard



## Chart: Torque versus Voltage

UPU5 special version (Z21)



UPU5 standard

