RMXprt Tutorial Guideline

Properties (Machine)

Name	Value	Unit	Evalua
Machine Type	Adjust-Speed Synchronous Machine		
Number of Poles	20		
Rotor Position	Inner Rotor		
Frictional Loss	50	W	50W
Windage Loss	50	W	50W
Reference Speed	600	rpm	
Control Type	AC		
Circuit Type	Y3		

Tab: Machine

Properties (Stator)

Name	Value	Unit	Evaluated Va
Outer Diameter	270	mm	270mm
Inner Diameter	180	mm	180mm
Length	135	mm	135mm
Stacking Factor	0.95		
Steel Type	M19_29G		
Number of Slots	24		
Slot Type	3		
Skew Width	0		0

Tab: Stator

Properties (Slot)

Name	Value	Unit	Evaluated Value
Auto Design	☐		
Parallel To...	☑		
Tooth Width	tooth_width		10mm
Hs0	0.5	mm	0.5mm
Hs1	1	mm	1mm
Hs2	hs2		25mm
Bs0	6	mm	6mm
Rs	5	mm	5mm

Tab: Slot

Properties (Winding)

Name	Value	Unit	Eva
Winding Layers	2		
Winding Type	Whole-Coiled		
Parallel Branches	1		
Conductors per Slot	conductor		80
Coil Pitch	1		
Number of Strands	2		2
Wire Wrap	0.5	mm	
Wire Size	Diameter: 1.024mm		

Tabs: Winding | End/Insulation

Properties (Rotor)

Name	Value	Unit	Evaluated Value
Outer Dia...	176	mm	176mm
Inner Diam...	100	mm	100mm
Length	135	mm	135mm
Steel Type	M19_29G		
Stacking F...	0.95		
Pole Type	1		

Tab: Rotor

Properties (Pole)

Name	Value	Unit	Evaluated Value
Embrace	0.7		0.7
Offset	0	mm	0mm
Magnet Ty...	NdFe35		
Magnet T...	magnet_thickness		5mm

Value

Tab: Pole

Properties (General/ASSM)

Name	Value	Unit	Evaluated Value
Name	Setup1		
Enabled	☑		
Operation ...	Motor		
Load Type	Const Power		
Rated Out...	8000	W	8000W
Rated Volt...	540	V	540V
Rated Spe...	600	rpm	600rpm
Operating ...	75	cel	75cel

Tabs: General | ASSM