



# **Product Line Overview**

BRAKES, CLUTCHES & SINPAC® SOLID STATE SWITCHES





Stearns is the market leader in providing quality products, outstanding service, engineering expertise and support to our customers. We understand reliability is critical. We offer over 100 years of proven dependability, unmatched on-time delivery, shorter lead times, pre-sale and post-sale application and service support by brake experts, and an on-site research and development lab for rapid prototype production.

### **AC Style Motor Brakes | Solenoid Actuated Benefits**

- Market leader & primary supplier to all US motor manufacturers
- Broad range of torque, enclosures & options to meet customer applications
- Standard AC voltage; DC voltages also available
- Rapid response times for set & release of brakes
- Brakes are easily repairable with readily available replacement parts
- The ONLY brake manfacturer to offer self-adjusting brakes & produce its own friction discs

### **DC Style Motor Brakes | Armature Actuated Benefits**

- Standard DC voltage; can be rectified for AC
- Simple construction, fewer wear parts, longer life with high cycle rates
- Available in metric or NEMA frame sizes
- Quiet brake features available for sound sensitive environments

#### **Encoder Brake Benefits**

- Cast-aluminum housing that meets IP 56 requirements
- Optimized for cool temperature operation

# SINPAC® Single Phase Motor Switch Benefits

- Solid-state switches are superior to mechanical switches
- Extends the life & reliability of the motor, especially for high-cycling or "dirty" environments
- Fast & easy to install & replace mechanical switches
- Sealed, spark-free switches for challenging environments
- Our parts work for a variety of motor manufacturers
- Capacitor start, capacitor start & run, & instant reversing
- A few SINPAC® switches replace dozens of mechanical switches

#### **TENV Modular Clutch Brakes | Super-Mod® Benefits**

- Cast-aluminum housing that meets IP 54 requirements
- Optimized for cool temperature operation
- Design optimized for reliability & reduced parts count
- Automatic gap adjustment
- Completely gasketed conduit box resists moisture & spray
- Washdown availability in select models

#### **Key Industries**

- Marine Equipment
- Residential Elevators
- Mining
- Agriculture
- Wind Energy
- Material Handling

#### Certifications

- ISO 9001:2015
- RoHS Compliant
- UL Recognized / UL Listed
- cULus Listed
- ABS Type Approved
- MSHA Certified

#### **Manfacturing Facility**

- 150,000 Square Feet
- Research & Development Lab
- CNC/DNC Machine Shop
- Complete Assembly Capability
- Internal Six Sigma
- Lean Manufacturing
- On-Site Quality Assurance Lab



# Solenoid Actuated Brakes

# **Close Coupled for Non-Drive End of Motor**

Mounts Directly to Motor | AC Operated, DC Optional



#### 48,100 Series

Details	Data
NEMA Frame	48C
Torque (lb-ft)	1.5 - 6
Torque (Nm)	2 - 8
Enclosure	UL Type 1
IP Rating	23



# 56,X00 Series

Details	Data
NEMA Frame	56C - 145TC
Torque (lb-ft)	1.5 - 25
Torque (Nm)	2 - 34
Enclosure	UL Type 1, Type 4X
IP Rating	21, 23, 54, 56



# 56,900 Series

Details	Data
NEMA Frame	56C - 145TC
Torque (lb-ft)	3 - 25
Torque (Nm)	4 - 34
Enclosure	UL Type 4X
IP Rating	56



# 87,000 Series

Details	Data
NEMA Frame	182TC - 256TC/UC
Torque (lb-ft)	6 - 125
Torque (Nm)	8 - 169
Enclosure	UL Type 1, Type 4X
IP Rating	23, 54, 56



# 87,100 Series

Details	Data
NEMA Frame	284TC/UC - 286TC/UC
Torque (lb-ft)	50 - 125
Torque (Nm)	68 - 169
Enclosure	UL Type 1
IP Rating	23, 54, 56



# 81,000 Series

Details	Data
NEMA Frame	324 - 405TC/TSC/UC/USC
Torque (lb-ft)	125 - 230
Torque (Nm)	169 - 312
Enclosure	UL Type 1
IP Rating	23, 54, 56



#### 82,000 Series

Details	Data
NEMA Frame	324 - 405TC/TSC/UC/USC
Torque (lb-ft)	125 - 440
Torque (Nm)	169 - 597
Enclosure	UL Type 1
IP Rating	23, 54, 56



#### 86,000 Series

Details	Data
NEMA Frame	444 - 445TC/TSC/UC/USC
Torque (lb-ft)	500 - 1000
Torque (Nm)	678 - 1356
Enclosure	UL Type 1
IP Rating	23, 54, 56



#### 86,100 Series

Details	Data
NEMA Frame	505TC/TSC/UC/USC
Torque (lb-ft)	500 - 1000
Torque (Nm)	678 - 1356
Enclosure	UL Type 1
IP Rating	23, 54, 56



# Solenoid Actuated Brakes

# **Division 1 Hazardous Location**

# **AC** Operated



#### 65,300 Series

Details	Data
NEMA Frame	56C - 145TC
Torque (lb-ft)	1.5 - 15
Torque (Nm)	2 - 20
Enclosure	UL Type 1, 4 NEMA 7, 9
IP Rating	40, 56
UL Listed	File E14893



#### 87,300 Series

Details	Data
NEMA Frame	182TC - 256TC/UC
Torque (lb-ft)	10 - 105
Torque (Nm)	14 - 142
Enclosure	UL Type 1, 4 NEMA 7, 9
IP Rating	40, 55, 56, 57
UL Listed	File E14893



### 82,300 Series

Details	Data
NEMA Frame	324 - 405TC/TSC/UC/USC
Torque (lb-ft)	125 - 330
Torque (Nm)	169 - 447
Enclosure	UL Type 1, 4 NEMA 7, 9
IP Rating	40, 56
UL Listed	File E14893



#### 87,300 Series

Details	Data
Foot Mounted	-
Torque (lb-ft)	10 - 105
Torque (Nm)	14 - 142
Enclosure	UL Type 1, 4 NEMA 7, 9
IP Rating	40
UL Listed	File E14893



# 82,300 Series

Details	Data
Foot Mounted	-
Torque (lb-ft)	125 - 330
Torque (Nm)	169 - 447
Enclosure	UL Type 4 NEMA 7, 9
IP Rating	56
UL Listed	File E14893





# 56,800 Series

Details	Data
NEMA Frame	56C - 145TC
Torque (lb-ft)	3 - 25
Torque (Nm)	4 - 34
Enclosure	UL Type 4
IP Rating	56
UL Listed	File E14893



#### 87,800 Series

Details	Data
NEMA Frame	182TC - 256TC/UC
Torque (lb-ft)	6 - 105
Torque (Nm)	8 - 142
Enclosure	UL Type 4
IP Rating	56
UL Listed	File E14893



# Solenoid Actuated Brakes

# **Double C-Face Coupler Brakes for Drive End of Motor**

Mounts Between Motor & Gearbox | Self-Adjusting, AC Operated



#### 56,700 Series

Details	Data
NEMA Frame	56C - 145TC
Torque (lb-ft)	1.5 - 25
Torque (Nm)	2 - 34
Enclosure	UL Type 1, 4X
IP Rating	23, 54, 56



### 87,700 Series

Details	Data
NEMA Frame	182TC - 256TC/UC
Torque (lb-ft)	10 - 105
Torque (Nm)	14 - 142
Enclosure	UL Type 1, 4X
IP Rating	23, 54, 56

# Foot Mounted with Bearing Supported Thru-Shaft



56,703 Series

Details	Data
NEMA Frame	56C - 145TC
Torque (lb-ft)	1.5 - 25
Torque (Nm)	2 - 34
Enclosure	UL Type 1
IP Rating	23



87,200 Series

Details	Data
NEMA Frame	182TC - 256TC/UC
Torque (lb-ft)	10 - 105
Torque (Nm)	14 - 142
Enclosure	UL Type 1
IP Rating	23, 54, 56

# **Special Application Brakes**



Marine/Maritime/Navy

Details	Data
NEMA Frame	56C - 505USC
Torque (lb-ft)	3 - 1000
Torque (Nm)	4 - 1356
IP Rating	54, 56



Mining - MSHA Certified

Details	Data
NEMA Frame	324TC - 405TC
Torque (lb-ft)	125 - 330
Torque (Nm)	169 - 447
IP Rating	56
Certification	MSHA



**Encoder Brakes** 

Details	Data
NEMA Frame	182TC - 505TC
Torque (lb-ft)	25 - 1000
Torque (Nm)	34 - 1356
IP Rating	23, 54, 56, 57
UL Listed	Models Available



# Armature Actuated Brakes

# **Armature Actuated Brakes**

Accepted by Motor Manufacturers & UL Recognition Coil Insulation System



#### 310 Servo Brake

Details	Data
Size	1.79 - 5.0
Torque (lb-in)	10 - 350
Torque (Nm)	1.1 - 39.5
Enclosure	Open
UL Recognized	Insulation System File E125303



#### 311 Servo Brake

Details	Data	
Size	3.38 - 5.0	
Torque (lb-in)	75 - 400	
Torque (Nm)	8.5 - 45.2	
Enclosure	Open	
UL Recognized	Insulation System File E125303	



#### 320 Gear Motor Brake

Details	Data	
Size	1.2 - 2.8	
Torque (lb-in)	3 - 50	
Torque (Nm)	0.34 - 5.6	
Enclosure	Open	
UL Recognized	Insulation System File E125303	



321 / 322 Gear Motor Brake

Details	Data	
Size	1.2 - 2.8	
Torque (lb-in)	3 - 72	
Torque (Nm)	0.34 - 8.1	
IP Rating	42, 54	
UL Recognized	Insulation System File E125303	



321 / 322 C-Face Mount

Details	Data
NEMA Frame	48C - 56C
Torque (lb-ft)	1.5 - 25
Torque (Nm)	2 - 34
IP Rating	42, 54
UL Recognized	Insulation System File E125303



# 330 / 331 / 333 Metric Frame

Details	Data	
Size	72 - 278	
Torque (lb-ft)	3 - 300	
Torque (Nm)	4 - 400	
Enclosure	Open	
UL Recognized	Insulation System File E125303	



330 / 331 / 333 C-Face Frame

Details	Data	
Size	48C, 56C, 182 - 184TC, 284 - 286TC/324TC - 405TSC	
Torque (lb-ft)	3 - 300	
Torque (Nm)	4 - 400	
IP Rating	43, 54	
UL Recognized	Insulation System File E125303	



350 Enclosed C-Face

Details	Data
Size	182 - 184IC/284 - 286TC/324TC - 405TSC
Torque (lb-ft)	75 - 300
Torque (Nm)	102 - 400
IP Rating	56
UL Recognized	Insulation System File E125303



360 Enclosed C-Face

Details	Data	
Size	182 - 184IC/284 - 286TC/324TC - 405TSC	
Torque (lb-ft)	35 - 300	
Torque (Nm)	47 - 400	
IP Rating	56	
UL Recognized	Insulation System File E125303	



# Other Product Offerings

# **Special Application Brakes**

Accepted by Motor Manufacturers & UL Recognition



#### **Thin Profile Brake**

Details	Data	
Mounting	Special Specific	
Torque (lb-ft)	42, 84	
Torque (Nm)	57, 114	
IP Rating	56	
UL Recognized	File E71115 Insulation System File E125303	



#### **Quiet Brake**

Details	Data	
NEMA Frame	56C, 182TC - 405TC	
Torque (lb-ft)	25 - 300	
Torque (Nm)	34 - 447	
IP Rating	43, 56	
UL Recognized	Insulation System File E125303	

# SINPAC® Switches | Electric Starting Switches for Single Phase



CV / 2CV Series



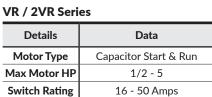




115 or 230 Volts

File E71115

Details	Data	Details
Motor Type	Capacitor Start	Motor Type
Max Motor HP	1/2 - 5	Max Motor HP
Switch Rating	16 - 50 Amps	Switch Rating
Start Circuit	115 or 230 Volts	Start Circuit
UL Recognized	File E71115	UL Recognized



#### IR Series / Instant Reverse

Details	Data
Motor Type	Capacitor Start & Run
Max Motor HP	1/2 - 2
Switch Rating	25 - 40 Amps
Start Circuit	115 Volts
<b>UL</b> Recognized	File E71115

# Super-Mod® Clutches & Brakes | Power-On Modules



# **Clutch-Brake Modules**

Details	Data
NEMA Frame	56C - 210TC
Static Torque (lb-ft)	16 - 145
Horse Power	1/8 - 10
IP Rating	54, 55
<b>UL</b> Recognized	Models Available



# **Clutch Only Modules**

Details	Data
NEMA Frame	56C - 210TC
Static Torque (lb-ft)	16 - 145
Horse Power	1/8 - 10
IP Rating	54, 55
<b>UL Recognized</b>	Models Available



# **Brake Only Modules**

Details	Data
NEMA Frame	56C - 210TC
Static Torque (lb-ft)	16 - 145
Horse Power	1/8 - 10
IP Rating	54, 55
<b>UL</b> Recognized	Models Available





### Why Choose Stearns?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Stearns is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

# **Delivering Lowest Total Cost of Ownership**

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

### Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

#### Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.