with remote control board

－Release device by cords（Mod． 541 3PH－ 541 3PH V）

## The solution for industrial applications

The 541 3PH gearmotors were specifically desi－ gned to satisfy all closing requirements in indu－ strial and commercial environments，and are able to automate sectional doors，large ones included．

## Sturdy and safe

The operation of the oil bath gearbox is guaran－ teed by a steel worm－screw coupled to a bronze ring－gear，enclosed in a solid die－cast aluminium body．
The gearmotor is non－reversing．In the event of a power cut，the door can be moved manually by using the＂rapid＂release cord device（standard supply for all models）or，in the 541 V 3 PH ver－ sions，by manually activating the chain winch．If one of the two manual activation systems is acti－ vated，a safety microswitch prevents electrical operation．

## The importance of versatility

The gearmotors were conceived for lateral fitting with＂direct＂transmission on the spring shaft，or with＂indirect＂transmission by chain．
The latter application make it possible to increase the automated system＇s versatility，enabling use even if lateral space is insufficient，or for particu－ larly heavy doors．
The gearmotor is highly compact，in particular its width of only 92 mm makes it easy to install even where space is tight．
The use frequency of the gearmotors（almost in－ tensive）means that they can be used also for par－ ticularly heavy duty cycles．

## SPECIFICATIONS

Power supply $400 \mathrm{Vac}(+6 \%-10 \%) 50-60 \mathrm{~Hz} \cdot$ Single－phase electric induction motor $1450 \mathrm{rpm} \cdot$ Max absorbed power $420 \mathrm{~W} \cdot$ Absorbed cur－ rent $1,1 \mathrm{~A} \cdot$ Rotation speed $23 \mathrm{rpm} \cdot$ Winding thermal protection to $140^{\circ} \mathrm{C} \cdot$ Use frequency（S3） $60 \%$ •Through Shaft diam 25.4 mm （ 1 ＂） drive．Shaft rated torque $70 \mathrm{Nm} \cdot$ Drive max．revs 24 －Protection class IP $54 \cdot$ Operating ambient temperature $-20^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C} \cdot$ Gearmotor maximum weight $14 \mathrm{~kg} \cdot$ Oil type FAAC OIL XD 220 －Oil quantity 0.75 I • Transmission by steel worm－screw and bronze ring－gear in oil bath －Die－cast aluminium body • Travel－limit unit with micrometric screw－Rapid release device for manual activation with cord • Chain winch （models 541／541 V）for manual activation

## 884 T control board

Motor maximum load： 1300 W • Motor maximum load： $24 \mathrm{Vdc}-500 \mathrm{~mA}$ max－Operating ambient temperature： $-20^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C}$ • Power supply to indicator－light： $24 \mathrm{Vac}(5 \mathrm{~W} \mathrm{max}) \cdot 4$ protection fuses $\cdot$ Safety timer： $255 \mathrm{~s} \cdot$ Motor braking fixed $\cdot$ Inputs： Open，partially open，stop，closing safety devices，limit－switch • Outputs：indicator－light，flashing lamp，motor， 24 Vdc power supply for accessories • Programming：Pause time（5710／15730／60／120／180 sec），Logics A1／A2／S1／S2／E1／E2／B／C，pre－flashing．

## 541 3PH


(*) GRAPH- APPLICATION RULES
Graph 1 shows with wich type of application the 541 3PH can be installed, considering the maximum force required to manually move the door $F$, in daN ( $1 \mathrm{daN}=$ force required to lift $1,02 \mathrm{~kg}$ ), and the diameter of the ropewinding drum Dt in millimeters. For example, if a door can be moved with a force of 108 daN and the drum diameter is 180 mm , a 541 3PH with chain transmission of 1:1.5 must be installed.
N.B.: Force $\mathbf{F}$ can be measured with a dynamometer. It is not directly related to the weight of the door, but its balance.


LEGENDA:
$\mathrm{L}=$ Maximum strength needed to manually move the door
$\mathrm{Dt}=$ Rope-winding Dt=Rope-winding drum diameter

Three-dimensional adjustment plate (optional)
Limit switch assembly
Chain winch
(Mod. 541V 3PH - 541X 3PH)


## C

| Specification of 844 T control board <br> (for 541 3PH models- installation in "remote") |  |
| :--- | :--- |
| Power supply | $230 \mathrm{~V} \mathrm{3ph}(+6 \%-10 \%) 60 \mathrm{~Hz}$ |
|  | $400 \mathrm{~V} \mathrm{3ph}+\mathrm{N}(+6 \%-10 \%) 60 \mathrm{~Hz}$ |
| Motor maximum load | 1300 W |
| Accessories output | 24 Vdc 500 mA max |
| Operating ambient temperature | $-20^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C}$ |
| Power supply to indicator-light | $24 \mathrm{~V} \sim(5 \mathrm{~W}$ max) |
| Four protection fuses | 6.3 A transformer |
| Safety timer | 1.6 A accessories |
| Motor braking | 255 seconds |

Inputs - Open, partially open, stop, closing safety devices, limit-switch Outputs - Indicator-light, flashing lamp, motor, 24 Vdc power supply for accessories
Programming - Pause time (5/10/15/30/60/120/180 sec.), Logics A1/A2/S1/S2/E1/E2/B/C, pre-flashing

Technical specifications of gearmotors 541 3PH

| Power supply | $400 \mathrm{Vac}(+6-10 \%) 50(60 \mathrm{~Hz})$ |
| :--- | :---: |
| Electric motor | 1450 rpm |
| Max absorbed power | 420 W |
| Absorbed current | $1,1 \mathrm{~A}$ |
| Winding thermal protection | $140{ }^{\circ} \mathrm{C}$ |
| Use frequency | $60 \%(\mathrm{S3})$ |
| Power take-off | Through shaft diam. $25.4 \mathrm{~mm}\left(1^{\prime \prime}\right)$ |
| Power take-off rotation speed | 23 rpm |
| Rated torque of power take-off | 70 Nm |
| Power take-off max revs | 24 |
| Protection class | IP 54 |
| Operating ambient temperature | $-20 \div+55^{\circ} \mathrm{C}$ |
| Gearmotor max weight | 14 Kg |
| Type of oil | FAAC OIL XD 220 |
| Oil quantity | $0,9 \mathrm{I}$ |


| Model | Applications | Use frequency (cycles/hour) | Control board |
| :--- | :--- | :--- | :--- |
| 541 3PH | See graphic $\left(^{*}\right)$ | $60 \%(S 3)$ | Not included |
| 541 X 3PH | See graphic $\left(^{*}\right)$ | $60 \%(S 3)$ | Not included |
| 541 V 3PH | See graphic $\left(^{*}\right)$ | $60 \%(S 3)$ | Not included |

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