



# OPERATOR

for potentially explosive atmospheres  
 flameproof/encapsulation  
 Ex d mb II CT3~T6 Gb  
 Ex mbD 21 tD A21 IP66/67 T85 C~T200 C  
 aluminium

Series  
**VCEF**

## FEATURES

- Explosion proof Junction Box Enclosure for the wiring of ASCO solenoids
- Intended for use in potentially explosive atmospheres, according to Directive Chinese Standard - GB
- NEPSI certificate (GYJ11.1695X) in compliance with GB3836.1, GB3836.2, GB3836.9, G B12476.1
- Electrostatic epoxy powder paint, stainless steel screws, and molded epoxy coils provide excellent protection in corrosive environment
- Factory pre-wired and assembled to any explosion proof ASCO RedHat II solenoid valve
- Easy electrical installation and installation cost reduction by means of a separate explosion proof splice box to terminate solenoid valves' wiring
- Enclosure comes with 12 combination choices of 4 different conduit directions and 3 sizes of conduit entries



## CONSTRUCTION

**Housing & Cover**

**Gasket**

**Coil**

**Ground Screws**

**Terminal Block**

Epoxy painted die cast aluminium  
 Silicon (VMQ)  
 Epoxy molded  
 Stainless Steel  
 Ceramic

## ELECTRICAL CHARACTERISTICS

**Standard Voltages**

## SAFETY CODE

Ex d mb II CT3~T6 Gb,  
 Ex mbD 21 tD A21 IP66/67 T85°C~T200°C

AC: 24, 120, 240, 480 volts, 60 Hz  
 or (110, 220 volts, 50 Hz)

DC: 6, 12, 24, 120, 240 volts

(Valves with VCEF housing maintain wattage and current ratings as shown on individual catalog sheets.)

## TEMPERATURE CLASSIFICATION

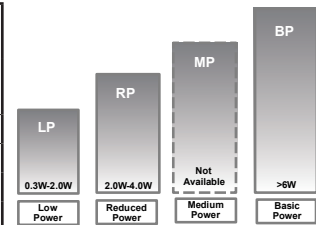
The minimum allowable ambient temperature is -40°C for the operator. Select the requested "T" classification from the temperature classification tables (AC or DC), respecting the maximum ambient temperature and cold (20°C) electrical holding power values.

### AC (-) Solenoids

Power Level (watt)	Solenoid Size			Insulation Class	"T" Classification	Maximum Ambient Temp. (° C)
	M6	MX	M12			
<b>Reduced Power (RP)</b>						
3.5		•		F	T4/T135° C	60
<b>Basic Power (BP)</b>						
6.1	•			F	T4/T135° C	52
6.1	•			H	T4/T135° C	60
8.1	•			F	T4/T135° C	52
8.1	•			H	T4/T135° C	60
9.1	•			F	T3/T200° C	52
9.1	•			F	T4/T135° C	40
9.1	•			H	T3/T200° C	60
9.1	•			H	T4/T135° C	40
10.1		•		F	T4/T135° C	52
10.1		•		H	T4/T135° C	60
11.1	•			F	T3/T200° C	52
11.1	•			F	T4/T135° C	40
11.1	•			H	T3/T200° C	60
11.1	•			H	T4/T135° C	40
12.0 <sup>(2)</sup>		•		F	T4/T135° C	55
15.1		•		F	T3/T200° C	40
15.1		•		F	T4/T135° C	55
16.1		•		F	T4/T135° C	52
16.1		•		H	T4/T135° C	55
17.1		•		F	T3/T200° C	40
17.1		•		H	T3/T200° C	40
20.1		•		F	T3/T200° C	22
20.1		•		H	T3/T200° C	22

### DC (=) Solenoids

Power Level (watt)	Solenoid Size			Insulation Class	"T" Classification	Maximum Ambient Temp. (° C)
	M6	MX				
<b>Low Power (LP)</b>						
0.55		•		F	T6/T85° C	65
0.70		•		H	T5/T100° C	80
0.70		•		F	T6/T85° C	65
0.75		•		F	T6/T85° C	65
1.40		•		F	T6/T85° C	60
1.70		•		F	T6/T85° C	60
1.80		•		F	T5/T100° C	74
1.80		•		F	T6/T85° C	55
2.00		•		F	T5/T100° C	74
2.00		•		F	T6/T85° C	55
<b>Basic Power (BP)</b>						
10.60	•			F	T4/T135° C	55
10.60	•			H	T4/T135° C	55
11.60		•		F	T4/T135° C	55
11.60		•		H	T4/T135° C	55
12.60		•		F	T4/T135° C	35
18.60		•		F	T4/T135° C	30
18.60		•		H	T4/T135° C	30
20.60		•		H	T4/T135° C	30
22.60		•		F	T4/T135° C	35
22.60		•		H	T4/T135° C	35
24.60		•		H	T4/T135° C	35



POWER LEVELS  
 electrical holding values (watt)

<sup>(1)</sup> Make sure that the selected ambient temperature does not exceed the allowable valve temperature characteristics as specified on the appropriate valve catalog sheets

<sup>(2)</sup> AC (-) rectified coil construction

### PREFIX TABLE

Prefix							Description
1	2	3	4	5	6	7	
V	C	E	F				Flameproof/Encapsulated - Aluminium NEPSI (GB3836) <sup>(3)</sup>
				H	T		Class H - High temperature
						X	Other special constructions

<sup>(3)</sup> Prefix VCEF - It comes with 12 combination choices of 4 different conduit directions and 3 conduit entries sizes. Refer to details under ORDERING EXAMPLES VALVES

### ORDERING EXAMPLES VALVES:

Add prefix corresponding to specific conduit size required to any RedHat II valve catalog number & specify the voltage.

**V C E F    C    M    G551H401    MO    110V / 50Hz**

prefix — V C E F

\*options — C M

A = option A  
B = option B  
C = option C  
D = option D

conduit sizes — M

M = 1/2" NPT  
N = 3/4" NPT  
P = M20\*1.5

basic number — G551H401

suffix — MO

voltage — 110V / 50Hz

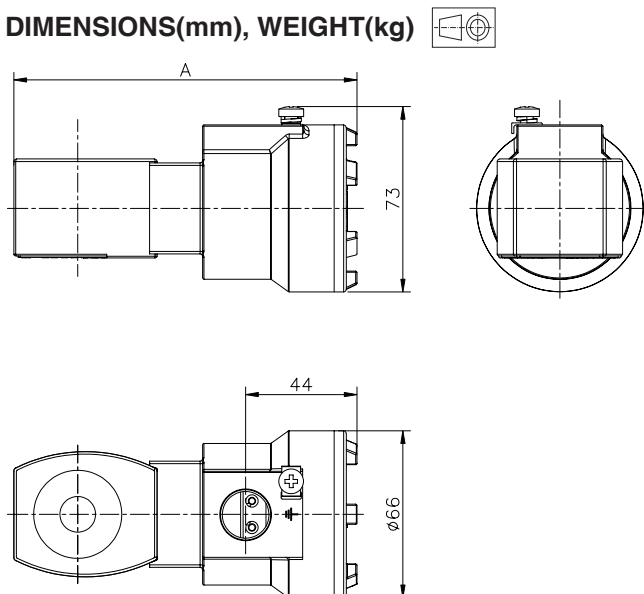
\*options

OPTION: A 	OPTION: B 
OPTION: C 	OPTION: D 

### INSTALLATION

- Installation/Maintenance instructions are included with each valve
- The solenoid operators can be mounted in any position without affecting operation
- For optimum life and performance, the solenoid should be mounted vertically and upright to reduce the possibility of foreign matter accumulating in the solenoid base sub-assembly area
- Internal and external earthing connection

### DIMENSIONS(mm), WEIGHT(kg)



SOLENOID SIZE	A(mm)	*WEIGHT
M6	129	0.75kg
MXX	136	0.75kg
M12	136	0.75kg

\* weight excludes solenoid